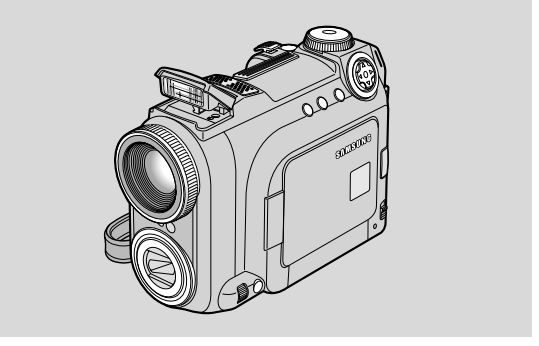
ENGLISH

Digital Video Camcorder

Mini DV Digital Video Cassette

VP-D6050(i)
VP-D6040(i)

AF **Auto Focus**
CCD **Charge Coupled Device**
LCD **Liquid Crystal Display**



Owner's Instruction Book

Before operating the unit, please read this Instruction Book thoroughly, and retain it for future reference.

SAMSUNG ELECTRONICS

This product meets the intent of Directive 89/336 CEE, 73/23 CEE, 93/68 CEE.

* VP-D6050S(i)/D6040S(i) models and VP-D6050(i)/D6040(i) models have the same technical specification whereas VP-D6050S(i)/D6040(i) models are available in Silver.

ENGLISH

Contents

Start ***8***

Precautions on Camcorder Care 8
Quick Start 9

Notes and Safety Instructions ***10***

Getting to Know Your Device ***15***

Features 15
Accessories Supplied with the Camcorder 16
  Basic Accessories 16
Front & Left View 17
Rear & Left View 18
Rear & Right View 19
Rear & Bottom View 20
Remote Control 21
OSD (On Screen Display in REC / PLAY Modes) 22
OSD (On Screen Display) in (Camera) Modes 23
Turning the OSD (On Screen Display) On / Off 24

The Camcorder : Preparation ***25***

How to Use the Remote Control 25
  Battery Installation for the Remote Control 25
  Self Timer Recording using the Remote Control 25
Adjusting the Hand Strap 26
  Hand strap 26
  Shoulder strap 26
Connecting a Power Source 27
  Using the AC Power Adapter and the DC Cable 27
Using the Lithium Ion Battery Pack 28
  Charging the Lithium Ion Battery Pack 28
  Table of Continuous Recording Time Based on Model and Battery Type 29
  Battery Level Display 30

Contents

Setting the Power Switch 31
Using the 5-Way Button 32
Adjusting the LCD Monitor 33
Adjusting the LCD in REC Mode 33
Adjusting the LCD in PLAY Mode 33
Using the Viewfinder 34
Adjusting the Focus 34
Controlling the Sound from the Built-In Speaker 35
Using the MENU 36

The Camcorder : Functions 38

Setting the Clock 38
Setting the DATE/TIME 39
Setting the Wireless Remote Control Acceptance (WL.REMOTE). 40
Setting the Beep Sound 41
Setting the OSD Language 41
Viewing the DEMONSTRATION 42
Turning the OSD (On Screen Display) On / Off for Video Out (Setting the TV DISPLAY) 43
Using EASYQ Mode 44
Manual Focus / Auto Focus (MF/AF) 45
Auto Focusing 45
Manual Focusing 45
Zooming In and Out with the Digital Zoom 46
Zooming In and Out 46

The Camcorder : Basic Recording 47

Inserting and Ejecting a Cassette 47
Inserting a Cassette 47
Ejecting a Cassette 47
Protecting a Cassette 48
Making Your First Recording 49
Recording Video 49
Record Search (REC SEARCH) 50
Playing Back a Tape You Have Recorded Using the LCD Monitor 51

ENGLISH

Contents

The Camcorder : Advanced Recording 52

Programmed Automatic Exposure Modes (PROGRAM AE) 52
- Setting the PROGRAM AE 53

Setting the White Balance for Camcorder Use (WHT.BALANCE) 54
Setting the Digital Zoom for Camcorder Use (D. ZOOM) 55
Setting the Digital Image Stabiliser (DIS) 56
Applying Digital Special Effects to Your Recording (DSE) 57
Selecting a Digital Special Effect in Camcorder Mode 58
Selecting the Record Mode for Camcorder Use 59
Selecting the Audio Mode for Camcorder Use 60
Cutting Off Wind Noise (WIND CUT) 61
Using Backlight Compensation Mode (BLC) 62
Setting the Slow Shutter Speed 63
NIGHT CAPTURE 64
POWER NIGHT CAPTURE 65
Setting the Shutter Speed and Exposure 66
Using the Fade In / Out Function 67
Setting Up and Using the Quick Menu 68
- DATE/TIME 68
- WL.REMOTE( ) 68
- DIS( ) 68
- DSE (Digital Special Effects) 69
- PROGRAM AE 69
- WHT.BALANCE 69
- SHUTTER / EXPOSURE 70

Taking Photos 71
Various Recording Techniques 72

The Camcorder : Playback 73

Playing Back a Recorded Tape 73
Various Functions in PLAY modes 74
- Playback Pause 74
- Picture Search – Forward/Reverse 74
- Slow Playback – Forward/Reverse 74
- X2 Playback (Forward/Reverse) 75

Contents

Frame Advance – Frame by Frame Playback 75
Searching Still Images 76
Dubbing an Additional Sound Track to Your Recording 77
Dubbing the Sound 77
Playing Dubbed Sound 78
Setting the Zero Memory on the Tape (Ending Position) 79
PB DSE - Applying Digital Special Effects to Your Recording During Playback 80
PB ZOOM- Zooming During Playback 81

The Camera : Preparation 82

Using the Mode Dial 82
Using the Memory Card 82
Memory Card Functions 82
Inserting a Memory Card 83
Ejecting a Memory Card 83
Formatting a Memory Card 84
Number of Recordable Images / Length of Motion Clip 85

The Camera : Functions 86

Numbering Stored Pictures 86
Setting the Picture Quality 87
Setting the Picture Size 88
Setting the Menu Language 89
Setting the LCD Brightness 90
Setting the Clock 91
Setting the IMPRINT Option 92
Setting the Wireless Remote Control Acceptance (WL.REMOTE) 93
Setting the Beep Sound 94
Setting the Shutter Sound 94
Using the Menu 95

The Camera : Basic Picture Taking 99

Taking and Viewing Your First Photo 99
Taking Still Images: PROGRAM Mode 99
Taking Still Images: EASYQ Mode 99

Contents

Viewing Still Images 100
Viewing a Single Still Image 100
Viewing a Slide Show 101
Setting the Q.View Duration 102
Viewing a Still Image using the Quick Review 102
Viewing Multiple Images in Multiple Image View 103
Deleting Recorded Pictures 103
Delayed Recording – Self Timer 105
Taking Motion Clips (MPEG) Using the Camera 106
Recording a Motion Clip (MPEG) onto a Memory Card 107
Viewing a Motion Clip (MPEG) 108

The Camera : Advanced Techniques 109

Setting the Focus 109
Using the Built-In Flash 110
Setting the Focus Modes 112
Auto Focus Mode 112
Manual Focus Mode 112
Continuous Auto Focus Mode 113
Macro Mode 114
Setting the Exposure 115
Locking the Auto Exposure: AE LOCK 115
Setting the Auto Exposure Metering Options: SPOT AE or MULTI AE 116
SCENE Modes – Preset Auto Exposure Modes 117
Manual Exposure Compensation 118
Setting the Aperture 119
Setting the Shutter Speed 120
Setting the White Balance 121
Setting the Preset White Balance 121
Setting the Manual White Balance 122
Setting the ISO Sensitivity 123
Using Digital Special Effects 124
Taking Multiple Images Using Auto Exposure Bracketing 125
Taking Multiple Images Using Continuous Shot 126
Setting the Sharpness 127

Contents

Using the Digital Zoom 128
Rotating a Stored Picture 129
Resizing a Stored Picture 130
Customizing Your Camera – MySET Menu 131
Memorizing Your Current Settings 131
Loading Your Customized Settings 132
Customizing Your Camera – Changing the Start-Up Image 133
Zooming & Trimming Recorded Pictures (Playback ZOOM) While Viewing 134
Zooming the Picture 134
Trimming the Picture 134
Protecting Stored Pictures 135

Miscellaneous Information 137

Printing Your Pictures – Using the PictBridge 137
Printing Your Pictures – Using the DPOF 142
Connecting to Other Devices – TV and VCR 145
Connecting to Other Devices – PC 151
Connecting to a PC using a DV (i.Link, IEEE 1394) cable 151
Connecting to a PC using a USB cable 153

Maintenance 156

Cleaning and Maintaining the Camcorder 156
After Using Your Camcorder 156
Cleaning the Camera Body and Video Heads 157
Using Your Camcorder Abroad 158

Troubleshooting 159

Troubleshooting 159
Self Diagnosis Display 159

Specifications 162

INDEX 164

Precautions on Camcorder Care

- ❖ Please note the following precautions for use:
- ❖ Please keep the device in a safe place. The device contains a lens that can be damaged by shock. Keep away from the reach of the children.

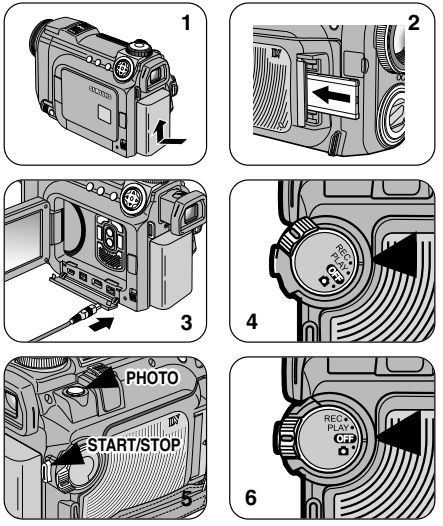
- ■ Do not place your device in a wet place. Moisture and water may cause the device to malfunction.
- ■ Do not aim the device at the sun while looking through the viewfinder; this may cause permanent damage to your eyes.
- ■ To avoid electric shock, do not touch your device or power cable with wet hands.
- ■ Do not use the flash close to another's eyes. The flash emits a strong light that may cause damage similar to direct sunlight on one's eyesight. Particular care should be observed if photographing infants, when the flash should be no less than 1m (approx. 3.3 feet) from your subject.
- ■ If the device is not working properly, please consult your nearest dealer or authorised Samsung service facility. Disassembling the device yourself may cause irrecoverable damage which will be difficult to repair.
- ■ Clean the device with a dry, soft cloth. Use a soft cloth moistened with a mild detergent solution for removing stains. Do not use any type of solvent, especially benzenes, as they may seriously damage the finish.
- ■ Keep your device away from rain and saltwater. After using, clean the device. Saltwater may cause the parts to corrode.
- ■ For better quality, please use (CAMERA) mode when taking still images. (Image quality of (CAMERA) mode is better than CAMCORDER mode.)

Start

Quick Start

- This device is a Camcorder and a Digital Still Camera in one system and provides a variety of functions. Please read this manual in its entirety.
- Before using the device, install the accessories in the following order:

1. Install the battery pack. Insert a cassette (refer to page 47).
2. Insert the Memory Card into the memory card slot (refer to page 83).
3. Charge the battery pack by connecting the power cable to the camcorder.
4. Set your device to REC or (CAMERA) mode by setting the Power Switch (refer to page 31).
5. Press the START/STOP button to record a video, or press the PHOTO button to record a still picture.
6. When finished, set the Power Switch to OFF.



Reference

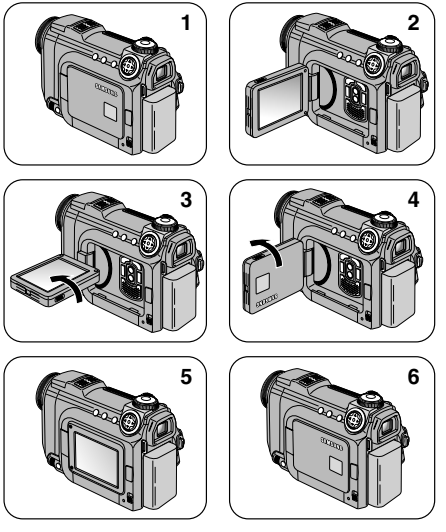
- To connect DC Power In / Multi-AV / DV / USB cable to the camcorder, open the LCD monitor and then open the Jack Cover.

Notes and Safety Instructions

Notes Regarding the Rotation of the LCD Screen

- Do not apply excessive force on the moving parts while adjusting the monitor.
- Over rotation or excessive force may damage the hinge connecting the LCD monitor to the Camcorder.

1. LCD monitor is closed.
2. Standard recording using the LCD monitor.
3. Recording while looking at the LCD monitor from the top.
4. Recording while looking at the LCD monitor from the front.
5. Recording while looking at the LCD monitor from the left.
6. Recording with the LCD monitor closed.



Notes and Safety Instructions

Notices Regarding COPYRIGHT

- Television programmes, movie video tapes, DVD titles, films and other programme materials may be copyrighted. Unauthorised recording of copyrighted materials may infringe on the rights of the Copyright owners and is contrary to copyright laws.
- All the trade names and registered trademarks mentioned in this manual or other documentation provided with your Samsung product are trademarks or registered trademarks of their respective holders.

Notes Regarding Moisture Condensation

1. A sudden rise in atmospheric temperature may cause condensation to form inside the camcorder.

For Example:

- Entering or leaving a heated place on a cold day might cause condensation inside the product.
- To prevent condensation, place the product in a carrying case or a plastic bag before exposing it to a sudden change in temperature.

2. If the (DEW) protection feature is activated, leave the camcorder for at least two hours in a dry, warm room with the cassette compartment opened and the battery removed.

Notes Regarding the CAMCORDER

1. Do not leave the camcorder exposed to high temperature (above 60°C or 140°F).
   For example, in a parked closed car in summer or exposed to direct sunlight.
2. Do not let the camcorder get wet. Keep the camcorder away from rain, salt water, or any other form of moisture. The product will be damaged if immersed in water or subjected to high levels of moisture.

Notes and Safety Instructions

Notes Regarding the Battery Pack

- Make sure the battery pack is fully charged before starting to record.
- To preserve battery power, keep your camcorder turned off when you are not operating it.
- If your device is in Camcorder mode, and it is left in STBY mode without being operated for more than 5 minutes with a tape loaded, it will automatically turn itself off to protect against unnecessary battery discharge.
- Make sure that the battery pack is attached firmly in place.
- The new battery pack provided with the product is not charged.
  Before using the battery pack, you need to fully charge it.
- **Do not drop the battery pack. Dropping the battery pack may damage it.**
- It is a good idea to use the viewfinder rather than the LCD monitor when recording for long periods, because the LCD monitor consumes more battery power.
- Fully discharging a Lithium-Ion battery damages the internal cells. The battery pack may be prone to leakage when fully discharged.
- To avoid damage to the battery pack, make sure to remove the battery when no charge remains.

✳ When the battery reaches the end of its life, please contact your local dealer.
Batteries must be disposed of as chemical waste.
✳ Be careful not to drop the battery pack when you release it from the camcorder.

Notes and Safety Instructions

Notes Regarding Video Head Cleaning

- To ensure normal recording and a clear picture, clean the video heads regularly. If a square block-shaped distorts playback, or only a blue screen is displayed, the video heads may be dirty. If this happens, clean the video heads with a dry type cleaning cassette.
- Do not use a wet-type cleaning cassette. It may damage the video heads.

Notes Regarding the Lens

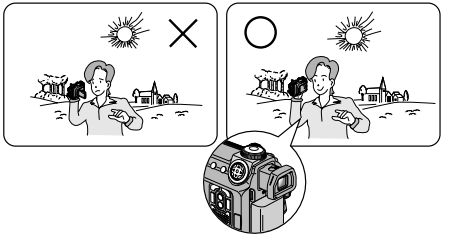
- Do not film with the camera lens pointing directly at the sun.
  Direct sunlight can damage the CCD (Charge Coupled Device, the imaging sensor).

Notes Regarding the Electronic Viewfinder

1. Do not position the camcorder such that the viewfinder is pointing directly towards the sun.
   Direct sunlight can damage the inside of the viewfinder. Be careful when setting the camcorder in a sunny place or near a window exposed to sunlight.
2. Do not pick up the camcorder by holding the viewfinder.
3. Applying excessive force to the viewfinder may damage it.

Notes Regarding 'Record' or 'Playback' Using the LCD

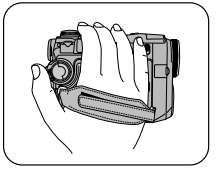
1. The LCD monitor has been manufactured using the high precision technology.
   However, there may be tiny dots (red, blue or green in colour) that appear on the LCD monitor.
   These dots are normal and do not affect the recorded picture in any way.
2. When you use the LCD monitor under direct sunlight or outdoors, it maybe difficult to see the picture clearly. If this occurs, we recommend using the viewfinder.
3. Direct sunlight can damage the LCD monitor.



Notes and Safety Instructions

Notes Regarding the Hand Strap

- To ensure a steady picture during filming, make sure that the hand strap is properly adjusted.
- Do not force your hand into the hand strap as you could damage it.



Precautions Regarding the Lithium Battery Cell

1. The Lithium battery maintains the clock function and user settings; even when the battery pack or AC adapter is removed.
2. The Lithium battery for the camcorder lasts about 6 months under normal operation from the time of installation.

Servicing

- Do not attempt to service this CAMCORDER yourself.
- Opening or removing covers may expose you to dangerous voltage or other hazards.
- Refer all servicing to qualified service personnel.

Replacement Parts

- When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer and having the same characteristics as the original part.
- Unauthorized substitutions may result in fire, electric shock or other hazards.

CAUTION

- DO NOT FIRE THE FLASH WHILE SCREENING THE FLASH BY HANDS. DO NOT TOUCH THE FLASHLIGHT AFTER CONTINUOUS FIRING OF THE FLASH. POSSIBLE BURNING HAZARD.

WARNING

- DO NOT FIRE THE FLASH FROM A SHORT DISTANCE TO A PERSON (ESPECIALLY TOWARDS AN INFANT). CLOSE FIRING A FLASH MIGHT CAUSE SERIOUS DAMAGE TO ONE'S EYES.

Getting to Know Your Device

Features

- **Supports IEEE 1394 Digital Data Transfer**
  By incorporating the IEEE 1394 (i.LINK™: i.LINK is a serial data transfer protocol and inter-connectivity system, used to transmit DV data) high speed data transport port, both moving and still images can be transferred to a PC, making it possible to produce or edit various images.
- **Integrated Camcorder / DSC operation**
  An integrated digital imaging device that easily converts between a Digital Camcorder and a Digital Still Camera with a flip of the Power Switch, ensuring comfortable and easy recording.
- **High Resolution Image Quality (Digital Still Camera)**
  Employing 4 Mega Pixels CCD, a maximum resolution of 2272x1704 is available (VP-D6040(i) only).
  Employing 5 Mega Pixels CCD, a maximum resolution of 2592x1944 is available (VP-D6050(i) only).
- **Digital Zoom**
  Allows the user to magnify an image up to 900x (Camcorder Mode) or 12x (Camera Mode) its original size.
- **Colour TFT LCD**
  A high-resolution colour TFT LCD gives you clean, sharp images as well as the ability to review your recordings immediately.
- **Digital Image Stabiliser (DIS)**
  The DIS compensates for any natural shaking movements, reducing unstable images, particularly at high magnification.
- **Various Digital Effects**
  The DSE (Digital Special Effects) allows the user to give the film a special look by adding various special effects.
- **MULTI OSD LANGUAGE**
  You can select the desired OSD Language among English, French, German, Spanish, and Italian.
- **Various Scene Modes**
  The SCENE modes enable you to easily alternate the shutter speed and aperture settings to suit the type of scene/action being filmed.
- **NIGHT CAPTURE**
  The NIGHT CAPTURE function enables you to record a subject in a dark place.
- **USB Interface for Digital Image Data Transfer**
  You can transfer still images to a PC using the USB interface without an add-on card.
- **Supports Various Memory Card Types**
  Multimedia Card (MMC), Secure Digital Memory Card (SD Card), Memory Stick, and Memory Stick Pro memory cards are supported.
- **Supports DPOF & PictBridge Printing Aid**
  DPOF (Digital Printing Order Format) and PictBridge interfaces are supported. By using these features, you can print your still images by using a printer that supports these features without having to use your PC.

ENGLISH

Getting to Know Your Device

Accessories Supplied with the Camcorder

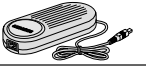
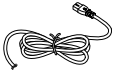
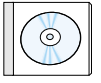
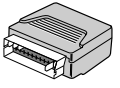
❖ Make sure that the following basic accessories are supplied with your digital camcorder.

Basic Accessories

1. Lithium Ion Battery Pack
2. AC Power Adapter
3. AC Power Cord
4. Multi-AV Cable
5. Instruction Book
6. Lithium battery for Remote Control and Clock
7. Shoulder Strap
8. USB Cable
9. Software CD
10. Remote Control
11. Memory Stick
12. Lens Cover

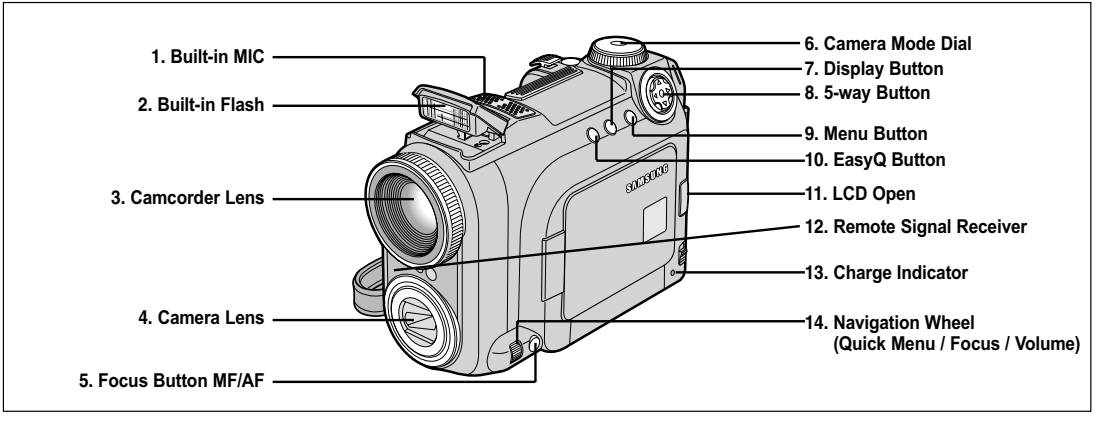
Optional Accessory

13. Scart Adapter

1. Lithium Ion Battery pack	2. AC Power Adapter (AA-E8 Type) 	3. AC Power Cord 
4. Multi-AV Cable	5. Instruction Book	6. Lithium battery for Remote Control and Clock(CR2025 type, 2EA)
7. Shoulder Strap	8. USB Cable	9. Software CD 
10. Remote Control	11. Memory Stick	12. Lens Cover
13. Scart Adapter 		

Getting to Know Your Device

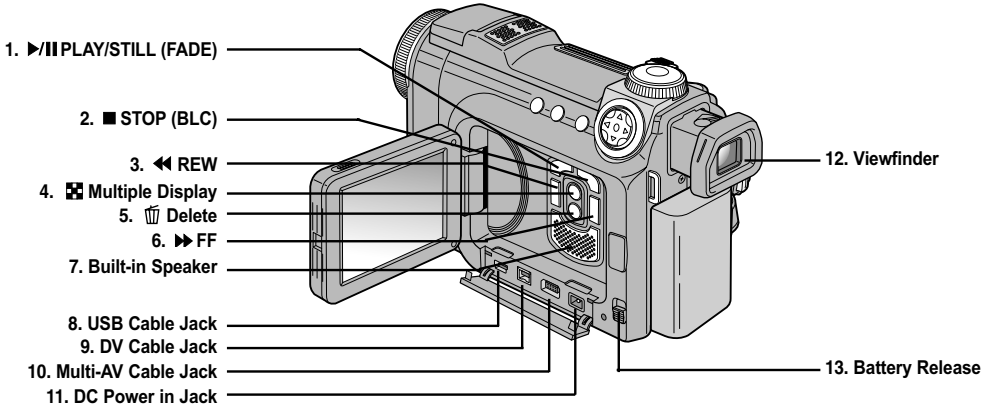
Front & Left View



1 Built-in MIC
2 Built-in Flash
3 Camcorder Lens
4 Camera Lens
5 Focus Button MF/AF
6 Mode Dial for Camera
7 Display Button
8 5-way Button
9 Menu Button
10 EasyQ Button
11 LCD Open
12 Remote Signal Receiver
13 Charge Indicator
14 Navigation Wheel (Quick Menu / Focus / Volume)

Getting to Know Your Device

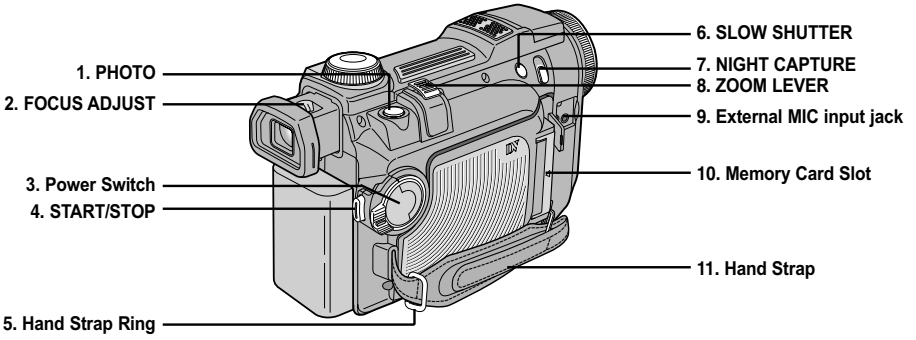
Rear & Left View



1 ▶/II PLAY/STILL (FADE)
2 ■ STOP (BLC)
3 ◀◀ REW
4 Multiple Display
5 Delete
6 ▶▶ FF
7 Built-in Speaker
8 USB Cable Jack
9 DV Cable Jack
10 Multi-AV Cable Jack
11 DC Power in Jack
12 Viewfinder
13 Battery Release

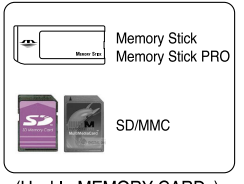
Getting to Know Your Device

Rear & Right View



1 PHOTO
2 FOCUS ADJUST
3 Power Switch
4 START/STOP
5 Hand Strap Ring
6 SLOW SHUTTER
7 NIGHT CAPTURE
8 ZOOM LEVER
9 External MIC input jack
10 Memory Card Slot
11 Hand Strap

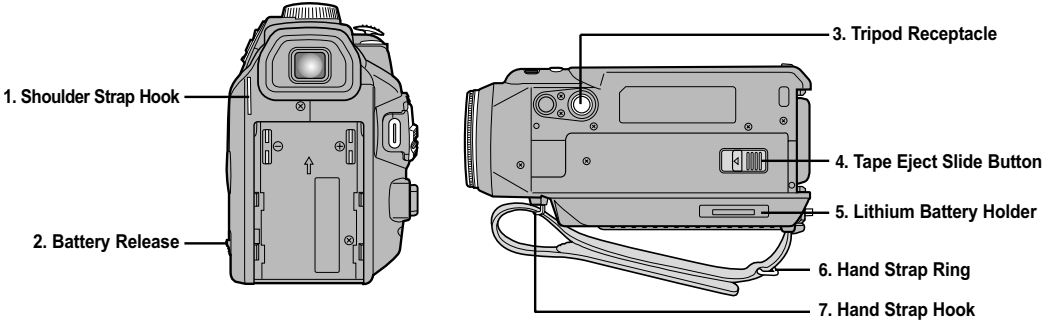
Memory Card slot



(Usable MEMORY CARDs)

Getting to Know Your Device

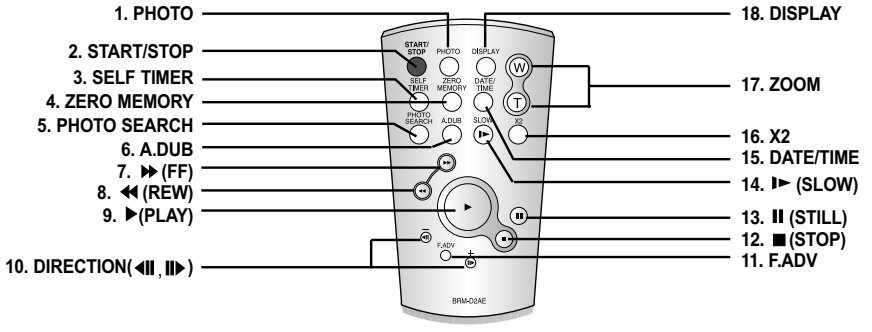
Rear & Bottom View



1 Shoulder Strap Hook
2 Battery Release
3 Tripod Receptacle
4 Tape Eject Slide Button
5 Lithium Battery Holder
6 Hand Strap Ring
7 Hand Strap Hook

Getting to Know Your Device

Remote Control



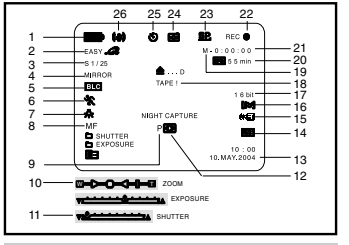
1	PHOTO
2	START/STOP
3	SELF TIMER
4	ZERO MEMORY
5	PHOTO SEARCH
6	A.DUB
7	▶▶ (FF)
8	◀◀ (REW)
9	▶(PLAY)
10	DIRECTION(◀II , II▶)
11	F.ADV
12	■ (STOP)
13	II (STILL)
14	I► (SLOW)
15	DATE/TIME
16	X2
17	ZOOM
18	DISPLAY

Getting to Know Your Device

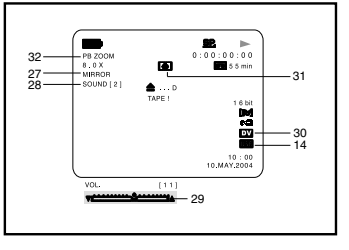
OSD (On Screen Display in REC / PLAY Modes)

1. Battery Level (refer to page 30)
2. EasyQ Mode (refer to page 44)
3. Slow Shutter (refer to page 63)
4. DSE (Digital Special Effects) Mode (refer to page 57)
5. BLC (Back Light Compensation) (refer to page 62)
6. SCENE (Program AE) Mode (refer to page 52)
7. White Balance Mode (refer to page 54)
8. Manual Focus (refer to page 45)
9. POWER NIGHT CAPTURE (refer to page 65)
10. Zoom Position (refer to page 55)
11. Shutter Speed and Exposure (refer to page 66)
12. NIGHT CAPTURE (refer to page 64)
13. DATE/TIME Indicator (refer to page 39)
14. USB (refer to page 153)
15. WL.REMOTE (refer to page 40)
16. Wind Cut (refer to page 61)
17. Audio Recording Mode (refer to page 60)
18. Message Line
19. Zero Memory Indicator (refer to page 79)
20. Remaining Tape (Measured in Minutes)
21. Tape Counter
22. Operating Mode
23. Record Speed Mode (refer to page 59)
24. PHOTO mode
25. Self recording and Waiting timer (refer to page 25)
26. DIS (Digital Image Stabiliser) (refer to page 56)
27. PB DSE (refer to page 80)
28. Audio Playback Channel (refer to page 78)
29. Volume Control (refer to page 35)
30. DV (DV data transfer mode) (VP-D6050i/D6040i only, refer to page 152)
31. DEW (refer to page 11)
32. PB ZOOM (refer to page 81)

OSD in REC mode



OSD in PLAY mode

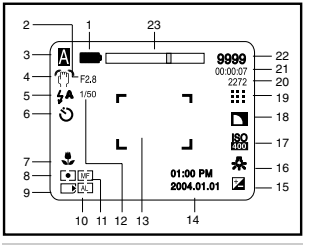


Getting to Know Your Device

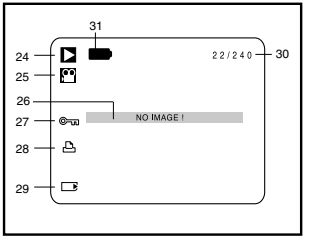
OSD (On Screen Display) in (Camera) Modes

1. Battery Level Display (refer to page 30)
2. F. No
3. Camera Mode (refer to page 82)
4. Vibration Warning (refer to page 109)
5. Flash Modes (refer to page 110)
6. Self Recording and Waiting Timer (refer to page 105)
7. Macro Mode (refer to page 114)
8. METERING Mode (refer to page 116)
9. Memory Card Indicator (refer to page 83)
10. AE LOCK (refer to page 115)
11. Manual Focus (refer to page 112)
12. Shutter Speed (refer to page 120)
13. Focus Area
14. DATE/TIME Indicator (refer to page 91)
15. Exposure Compensation (refer to page 118)
16. White Balance Mode (refer to page 121)
17. ISO Sensitivity (refer to page 123)
18. Sharpness (refer to page 127)
19. Image Quality (refer to page 87), or MPEG Frame Rate (refer to page 106)
20. Image Size (refer to page 88)
21. Remaining Time for MPEG Recording
22. Remaining Free Space for Still Image
23. Zoom Level Indicator
24. PLAY Mode (refer to page 100)
25. Motion Clip Indicator
26. Message Line
27. Protection Indicator (refer to page 135)
28. Print Mark
29. Memory Card Indicator (refer to page 83)
30. Image Counter
    - Current Image / Total number of recorded images
31. Battery Level Display (refer to page 30)

OSD in CAMERA mode



OSD in CAMERA PLAY mode



Getting to Know Your Device

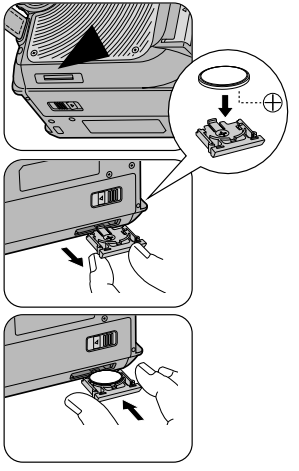
Turning the OSD (On Screen Display) On / Off

- **Turning the OSD on / off**

1. Press the DISPLAY button. Each press of the button toggles the OSD function on and off.
2. When you turn the OSD off,
   In REC mode: The STBY, REC, EASYQ modes are always displayed on the LCD monitor even when the OSD is turned off and key input is displayed for 3 seconds before disappearing.
   In PLAY mode: When you press any function button, the function is displayed on the LCD monitor for 3 seconds before it disappears.

- **Turning the DATE/TIME on / off**

1. The DATE/TIME is not affected when the OSD function is switched ON or OFF.
2. To turn the DATE/TIME on or off, access the menu and change the DATE/TIME mode (refer to page 39).
3. You may also use the Navigation Wheel (Quick Menu) to turn the DATE/TIME on or off. (refer to page 68) (in **REC** mode)



Battery Installation for the Internal Clock

- ✤ You need to insert or replace the Lithium battery when:
  - ✓ You purchase the camcorder
- ✤ Ensure that you insert the Lithium battery cell correctly, matching the + and – markings.
- ✤ Be careful not to reverse the polarity of the battery.

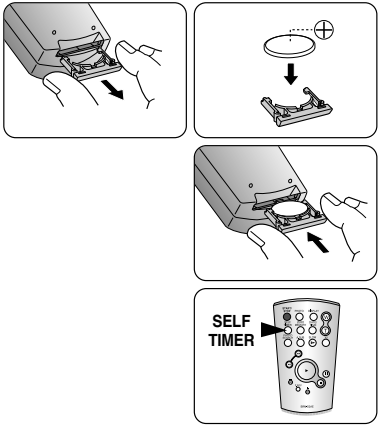
Warning

- ✤ Keep the Lithium Battery out of the reach of the children. Should any battery be swallowed, consult a doctor immediately.
- ✤ Use a suitable tool to draw out the Lithium Battery Holder such as tip of a ball point pen. Do not use your fingernails, otherwise it may hurt your fingernails.

The Camcorder : Preparation

How to Use the Remote Control

Battery Installation for the Remote Control



- You need to insert or replace the Lithium battery when:
  - ✓ You purchase the camcorder
  - ✓ The remote control does not work
- Ensure that you insert the Lithium battery cell correctly, matching the + and – markings.
- Be careful not to reverse the polarity of the battery.

Self Timer Recording Using the Remote Control in REC Mode

When you use the Self Timer function on the remote control, the recording begins automatically after 10 seconds.

1. Turn on your device by setting the Power Switch to **REC** mode.
2. Press the **SELF TIMER** button until the appropriate indicator is displayed on the LCD monitor or in the viewfinder.
3. Press the **START/STOP** button for recording to start the timer.
   - ✓ After 10 seconds, recording or photography begins.
   - ✓ Press the **START/STOP** button again when you want to stop recording.

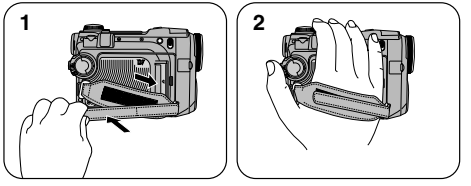
The Camcorder : Preparation

Adjusting the Hand Strap

- It is very important to ensure that the Hand Strap has been correctly adjusted before you begin your recording.
  The Hand Strap enables you to:
  - Hold the camcorder in a stable, comfortable position.
  - Press the Zoom Lever, **START/STOP**, and **PHOTO** buttons without having to change the position of your hand.

Hand Strap

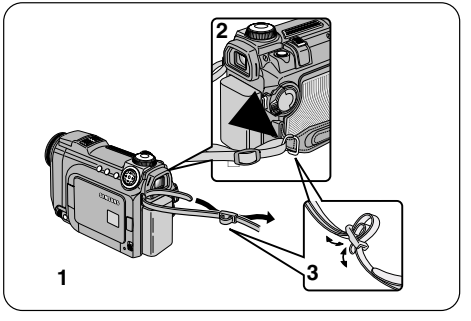
1. Pull open the Hand Strap to release the Hand Strap.
2. Adjust its length and stick it back onto the Hand Strap.



Shoulder Strap

The Shoulder Strap enables you to carry your camcorder around in complete safety.

1. Insert the end of Shoulder Strap into the Shoulder Strap Hook on the Camcorder.
2. Insert the other end of the strap into the ring attached to the Hand Strap.
3. Thread each end into the buckle, adjust the length of the strap and then pull it tight in the buckle.



Reference

- Be sure to secure the shoulder strap. Improper threading of the shoulder strap may result in serious damage if the Camcorder drops and hits a hard surface.

The Camcorder : Preparation

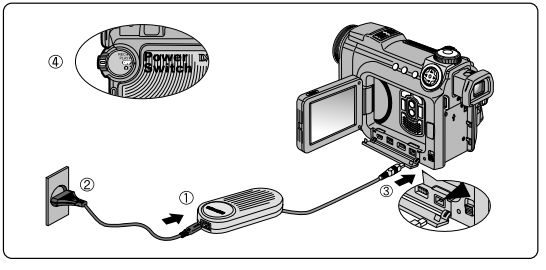
Connecting a Power Source

There are two types of power source that can be connected to your camcorder.

- The AC Power Adapter and the AC Power Cord: used for indoor recordings.
- The Battery Pack: used for outdoor recordings.

Using the AC Power Adapter and the DC Cable

1. Connect the AC Power Adapter to the AC cord.
2. Connect the AC Power Cord to a wall socket.



Reference

- ❖ You must use the AA-E8 type AC Power adapter.
- ❖ The plug and wall socket type may differ according to your country of residence.

3. Plug in the DC jack of the AC Power Adapter into the Power In jack of your camcorder.

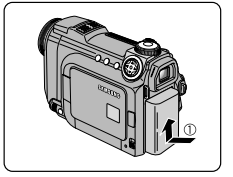
4. Set the camcorder to different modes by holding down the tab on the power switch and turning it to the REC / PLAY, or (CAMERA) modes.

The Camcorder : Preparation

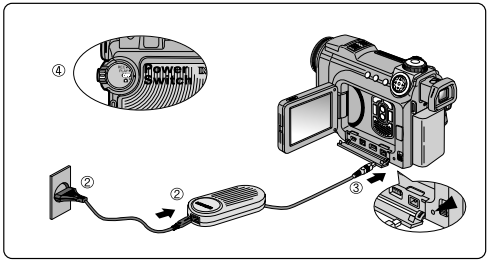
Using the Lithium Ion Battery Pack

Charging the Lithium Ion Battery Pack

1. Attach the Battery Pack to the device.
2. Connect the AC Power Adapter to the AC Power Cord and connect the AC Power Cord to a wall outlet.
3. Connect the DC cable to the DC jack on the device.
4. Turn the device off and the charging indicator will start to flash, showing that the battery is charging.



Blinking time	Charging rate
Once per second	Less than 50%
Twice per second	50% ~ 75%
Three times per second	75% ~ 90%
Blinking stops and stays on	90 ~ 100%
On for a second and off for another second	Error - Reset the battery pack and the DC cable



5. When the battery is fully charged, disconnect the battery pack and the AC Power Adapter from the device.

Reference

- The amount of continuous recording time available depends on:
  - The type and capacity of the battery pack you are using.
  - How often the Zoom / flash is used.
  - Type of use (Camcorder/Camera/With LCD monitor etc.).
  - Ambient temperature.

  It is recommended to have additional battery packs available.
- Even when the power switched off, the battery pack will still discharge if it is left attached to the device.
- The Battery Pack may be charged a little at the time of purchase.
- Fully discharging the Lithium battery pack is not required since there is no memory effect.
- For prolonged use of the Battery Pack, remove the Battery Pack from the camcorder after use/charging.

The Camcorder : Preparation

Table of Continuous Recording Time Based on Model and Battery Type

- When you close the LCD monitor, it turns off and the viewfinder automatically turns on.
- The continuous recording times given in the table are approximations. Actual recording time depends on usage.

Time / Battery	Charging Time	Continuous Recording Time	
		LCD ON	CVF ON
SB-LS110	Approx. 2HR	Approx. 1HR 30MIN	Approx. 2HR
SB-LS220	Approx. 3HR 30MIN	Approx. 3HR 10MIN	Approx. 4HR 10MIN

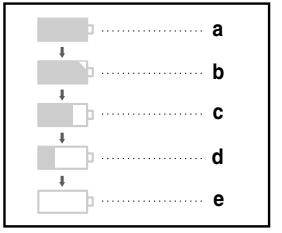
Reference

- The Battery Pack should be recharged in an environment between 32°F (0°C) and 104°F (40°C).
- The Battery Pack should never be charged in a room with a temperature that is below 32°F (0°C).
- The life and capacity of the Battery Pack will be reduced if it is used in temperatures below 32°F (0°C) or left in temperatures above 104°F (40°C) for a long period of time, even when it is fully recharged.
- Do not put the Battery Pack near any heat source (i.e. fire or a heater).
- Do not disassemble, apply pressure to or heat the Battery Pack.
- Do not allow the + and – terminals of the Battery Pack to be short-circuited.
  It may cause leakage, heat generation, induce overheating or fire.
- Use SB-LS110 or SB-LS220 battery packs only.

The Camcorder : Preparation

Battery Level Display

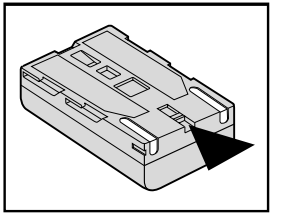
The Battery Level Display shows the amount of battery power remaining in the Battery Pack.



a. Fully Charged
b. 20 ~ 40% used
c. 40 ~ 80% used
d. 80 ~ 95% used
e. Exhausted (flickers)
(The device will soon turn off. Change the Battery Pack as soon as possible)

Tips for Battery Identification

A charge mark is provided on the battery pack to help you remember whether it has been charged or not.
Two colours are provided (red and gray). You may choose which one indicates charged and which indicates discharged.
The charge mark setting does not affect the battery charge status.



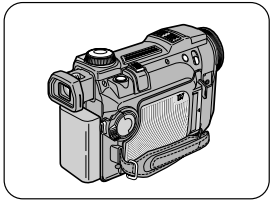
Reference

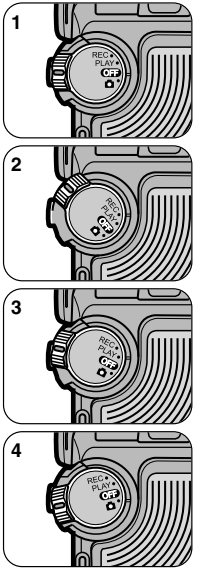
- Please refer to the Table on page 29 for approximate continuous recording times.
- The recording time is affected by temperature and environmental conditions.
- The recording time shortens dramatically in a cold environment. The continuous recording times in the operating instructions are measured using a fully charged Battery Pack at 77°F (25°C). As the environmental temperature and conditions may differ from your actual use of the camcorder, the remaining battery time may differ from the approximate continuous recording times given in the instructions.

The Camcorder : Preparation

Setting the Power Switch

❖ Use the Power Switch to select the working mode of the device.





1. OFF mode: Turn the device off. To recharge the Battery Pack attached, connect the AC Power Adapter and cables while the Power Switch is set to OFF.
2. REC mode: Record onto a cassette tape
3. PLAY mode: Play and edit the recorded cassette tape
4. (CAMERA) mode: Switches to Digital Still Camera mode. Set the Camera Mode Dial to desired mode and you can take still images and save images on a memory card.

Reference

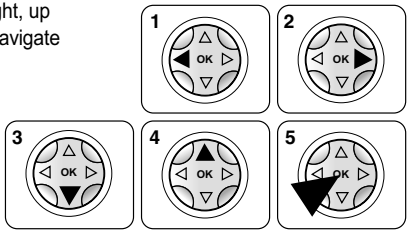
❖ Switching to (CAMERA) mode by setting the Power Switch will activate the Digital Still Camera Lens to pop out. Do not obstruct the lens when it is moving, as it may damage the mechanism.

The Camcorder : Preparation

Using the 5-Way Button

The 5-Way Button

- The 5-way button is used to make a selection, and to move the cursor left, right, up and down. Using the 5-way button, you can easily make your selection and navigate the menu.
- The 5-way button works both in camcorder and camera modes.



1. LEFT button
2. RIGHT button
3. DOWN button
4. UP button
5. OK button

The Camcorder : Preparation

Adjusting the LCD Monitor

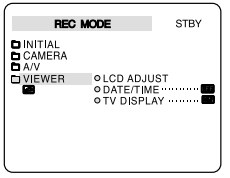
Adjusting the LCD in REC Mode

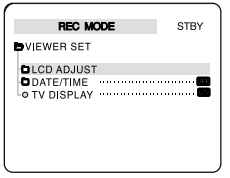
- Your camcorder is equipped with a 2.5 inch colour Liquid Crystal Display monitor, which enables you to view directly what you are recording or playing back.
- Depending on the conditions under which you are using the camcorder (indoors or outdoors for example), you can adjust:
  - BRIGHT ADJUST
  - COLOUR ADJUST

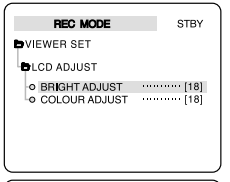
1. Set the Power Switch to REC mode.
   - In PLAY mode, you may only setup the LCD while the tape is being played back.
2. Open the LCD monitor. The LCD turns on.
3. Press the MENU button.
4. Press the DOWN button to select “VIEWER” and then press the OK button.
5. Press the DOWN button to select “LCD ADJUST” and then press the OK button.
6. Select an item you want to adjust using the DOWN or UP button, then press the OK button.
7. Adjust the selected item by pressing the DOWN or UP button.
   Available adjustment range for “BRIGHT ADJUST” and “COLOUR ADJUST” is 00 ~ 35.
8. Press the MENU button to exit the menu screen when you are finished.

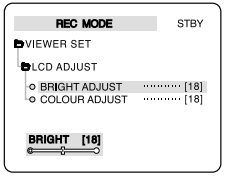
Adjusting the LCD in PLAY Mode

- You can adjust the LCD during playback
- The adjustment method is the same as the above procedures for REC mode.









The Camcorder : Preparation

Using the Viewfinder

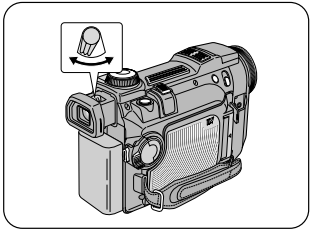
❖ The Viewfinder will not work when the LCD monitor is open.

Adjusting the Focus

The FOCUS ADJUST on the viewfinder enables individuals with vision problems to see clearer images.

1. Close the LCD monitor and pull out the Viewfinder.

2. Use the FOCUS ADJUST on the Viewfinder to find the best picture.

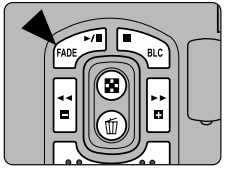


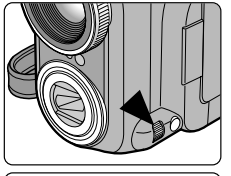
Reference

❖ Viewing the sun or any strong light source through the Viewfinder for a prolonged periods may be harmful, or cause temporary impairment.
❖ The Viewfinder will work when the LCD is closed or facing the front.

The Camcorder : Preparation

Controlling the Sound from the Built-In Speaker





- The Built-In Speaker works only in PLAY mode.
- When you use the LCD monitor for playback, you can hear the recorded sound through the Built-In Speaker.
  - Follow the instructions below to decrease or mute the speaker volume while in PLAY mode.
  - Take the following steps to decrease/increase the volume or mute the sound while playing a cassette on the camcorder.

1. Turn your camcorder on by setting the Power Switch to PLAY mode.
2. Press the ▶/II (PLAY/STILL) button to play the tape.
3. Once the tape is playing and you hear sound, use the Navigation Wheel to adjust the volume.
   - The Volume Level Display will appear on the LCD monitor.
     Levels may be adjusted between 00 ~ 19. You will not hear any sound when the volume is set to 00.
   - If you close the LCD while playing, you will hear no sound from the speaker.

Reference

- When the Multi-AV cable is connected to the camcorder, you cannot hear sound from the Built-In Speaker and cannot adjust the volume.
- The sound will return when you remove the connected Multi-AV cable from the jack of your Camcorder.

The Camcorder : Preparation

Using the MENU

- Use the MENU button to change or select recording settings and hardware functions.
- MENU instructions are displayed both on the LCD monitor and the viewfinder. It is easier to operate the unit using the LCD monitor.

MENU	SUB MENU		Functions	Page
INITIAL	CLOCK SET		Setting the Time	38
	WL.REMOTE		Using the Remote Control	40
	BEEP SOUND		Play various sound effects	41
	LANGUAGE		Selects OSD language	41
	DEMONSTRATION		Demonstrates the camcorder functions	42
CAMERA	PROGRAM AE		Selecting the PROGRAM AE Function	52
	WHT.BALANCE		Controls the White Balance	53
	D.ZOOM		Controls the Digital Zoom	55
	DIS		Sets the Digital Image Stabiliser on or off	56
	DSE SELECT		Selects Digital Special Effects	57
A/V	REC	REC MODE	Selects recording speed	59
		AUDIO MODE	Selects the audio quality for recordings	60
		WIND CUT	Removes Wind Noise	61
	PLAY	PHOTO SEARCH	Searches Still Images recorded in tape	76
		PB DSE	Selecting Playback DSE	80
		AV IN/OUT	Redirects the AV terminal (VP-D6050i/D6040i only)	148
		AUDIO SELECT	Selects the Sound tracks	78
VIEWER	LCD ADJUST		Setting the brightness and colour of the LCD monitor	33
	DATE/TIME		Setting the Date and Time	39
	TV DISPLAY		Sets the OSD output to AV out on / off	43

The Camcorder : Preparation

❖ Available menu items according to the current mode are shown below.

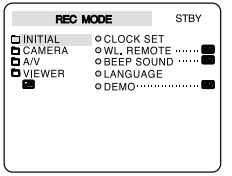
MENU	SUB MENU		Available Modes	
			REC Mode	PLAY Mode
INITIAL	CLOCK SET		✓	✓
	WL.REMOTE		✓	✓
	BEEP SOUND		✓	✓
	LANGUAGE		✓	✓
	DEMONSTRATION		✓ (only without a tape)	
CAMERA	PROGRAM AE		✓	
	WHT.BALANCE		✓	
	D.ZOOM		✓	
	DIS		✓	
	DSE SELECT		✓	
A/V	REC	REC MODE	✓	✓
		AUDIO MODE	✓	✓
		WIND CUT	✓	✓
	PLAY	PHOTO SEARCH		✓
		PB DSE		✓
		AV IN/OUT (VP-D6050i/D6040i only)		✓
		AUDIO SELECT		✓
VIEWER	LCD ADJUST		✓	✓
	DATE/TIME		✓	✓
	TV DISPLAY		✓	✓

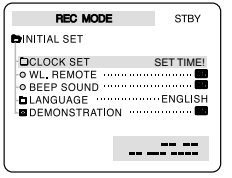
The Camcorder : Functions

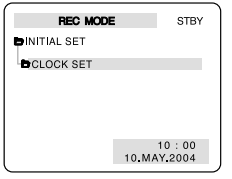
Setting the Clock

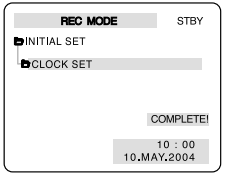
- CLOCK SET Menu of your camcorder works in both REC and PLAY modes.
- The DATE/TIME information is automatically recorded onto the tape.

1. Press the MENU button.
   - The top menu including “INITIAL” is displayed.
2. Press the OK button to select “INITIAL”, then press the OK button again.
   - The CLOCK SET Menu is selected and the Year blinks.
3. Set the current Year using the UP or DOWN button and then press the OK button.
   - The Year is set, and the Month begins to blink.
4. Set the current Month, Date and Time by following the same procedure.
   - The word “COMPLETE!” appears and then automatically returns to the INITIAL SET Menu.
5. Press the MENU button to exit the menu screen.









Reference

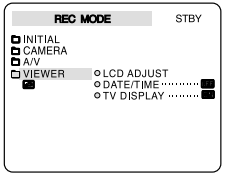
- A separate Clock setting function is provided for the Digital Camera (refer to page 91).

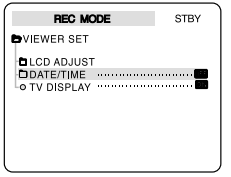
The Camcorder : Functions

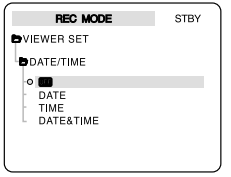
Setting the DATE/TIME

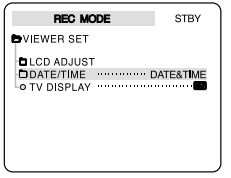
- ❖ Displays the DATE / TIME on the LCD monitor while recording or playing a tape.
- ❖ The DATE / TIME setting works in both REC and PLAY modes.

1. Turn on your camcorder by setting the Power Switch to REC mode.
2. Press the MENU button.
   - ■ The top menu including “VIEWER” is displayed.
3. Press the DOWN button to select “VIEWER”, then press the OK button.
   - ■ The submenu including “DATE/TIME” is displayed.
4. Press the DOWN button to select “DATE/TIME”, then press the OK button.
   - ■ The options available for DATE/TIME display are listed.
5. Select an option using the DOWN or UP button, then press the OK button.
   - ■ The selected option is applied.
6. Press the MENU button to exit the menu screen.









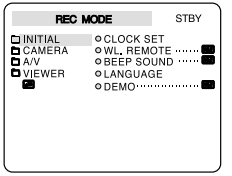
Reference

- ❖ Date and Time information is automatically recorded on a special data area of the tape.
- ❖ The DATE/TIME will read “- - -” under the following conditions:
  During playback of a blank section of a tape.
  If the tape was recorded before setting the clock in Camcorder mode.
  When the Lithium battery becomes weak or dead.
- ❖ Before setting the DATE/TIME, be sure to set the CLOCK. Refer to Setting the Clock in page 38.

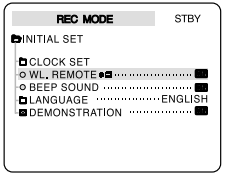
The Camcorder : Functions

Setting the Wireless Remote Control Acceptance (WL.REMOTE)

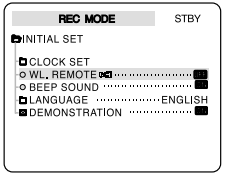
- The WL.REMOTE menu works in both REC and PLAY modes.
- The WL.REMOTE option allows the user to enable or disable the remote control for use in Camcorder modes.



1. Press the MENU button.
   - The top menu including “INITIAL” is displayed.



2. Press the OK button to select “INITIAL”.
   - The submenu including “WL.REMOTE” is displayed.



3. Press the DOWN button to select “WL.REMOTE”, then press the OK button.
   - WL.REMOTE toggles between ON – OFF.

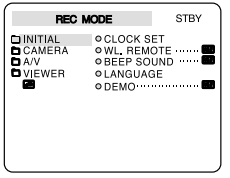
4. Press the MENU button to exit the menu screen.

Reference

- A separate Remote Control Setting function is provided for the Digital Camera (refer to page 93).
- If you set the WL.REMOTE to OFF in the menu and try to use it, the remote control icon will blink for 3 seconds on the LCD monitor and then disappear.

The Camcorder : Functions

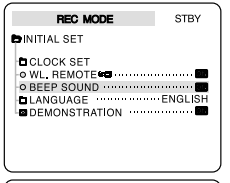
Setting the Beep Sound



- The Beep Sound function works in Camcorder modes.

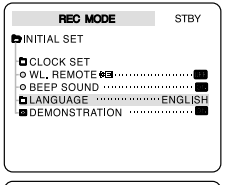
1. Press the MENU button.
   - The top menu including “INITIAL” is displayed.
2. Press the OK button to select “INITIAL”.
   - The submenu including “BEEP SOUND” displays.
3. Press the DOWN to select “BEEP SOUND”, then press the OK button.
   - BEEP SOUND toggles between ON – OFF.
4. Press the MENU button to exit the menu screen.

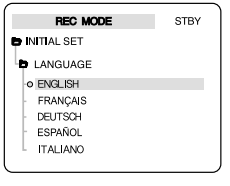
Setting the OSD Language



- Select the appropriate OSD Language among English, French, German, Spanish and Italian.
- The Language function works in Camcorder modes.

1. Press the MENU button.
   - The top menu including “INITIAL” is displayed.
2. Press the OK button to select “INITIAL”.
   - The submenu including “LANGUAGE” displays.
3. Press the DOWN button to select “LANGUAGE”, then press the OK button.
   - The available LANGUAGE options are listed.
4. Select a language for OSD using the DOWN or UP button, then press the OK button.
   - The OSD is refreshed in selected language.
5. Press the MENU button to exit the menu screen.





Reference

- Separate Language setting is provided for the Digital Camera (refer to page 89).

The Camcorder : Functions

Viewing the DEMONSTRATION

- The Demonstration automatically guides you through the major functions of your camcorder so that you may more easily take advantage of all the features provided.
- The DEMONSTRATION is only available in Camcorder's REC mode (when no tape is inserted).
- The DEMONSTRATION operates repeatedly until DEMONSTRATION mode is switched OFF.

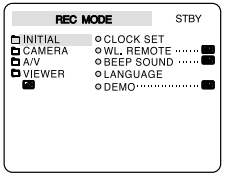
1. Turn on your camcorder by setting the Power Switch to REC mode.

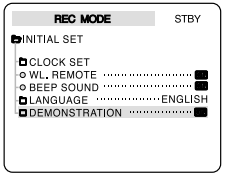
2. Press the MENU button.
   - The top menu including "INITIAL" is displayed.

3. Press the OK button to select "INITIAL".
   - The submenu including "DEMONSTRATION" is displayed.

4. Press the DOWN button to select "DEMONSTRATION", then press the OK button.
   - DEMONSTRATION toggles between ON – OFF.

5. Press the MENU button to exit the menu screen and the DEMONSTRATION will automatically begin.





Reference

- The DEMONSTRATION function only works when there is no TAPE inside the camcorder.
- The DEMONSTRATION mode is automatically activated when the camcorder is left idle for more than 10 minutes after switching to REC mode (when no tape has been inserted in the camcorder).
- If you press any other buttons during the DEMONSTRATION, it will temporarily stop and resume again after 10 minutes of idle time.

The Camcorder : Functions

Turning the OSD (On Screen Display) On / Off for Video Out (Setting the TV DISPLAY)

- The TV DISPLAY function works in both REC and PLAY modes.
- You can select the output path for the OSD (On Screen Display).
  - OFF: The OSD appears only on the LCD monitor and the CVF.
  - ON: The OSD appears on the LCD screen, the CVF and the TV screen.
  - Use the DISPLAY button located on the left side of the camcorder to turn On/Off all of the OSD for the LCD/CVF/TV.

1. Turn on your camcorder and set the Power Switch to REC mode.

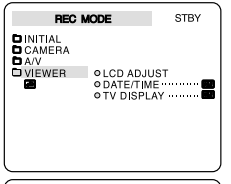
2. Press the MENU button.
   - The top menu including “VIEWER”, is displayed.

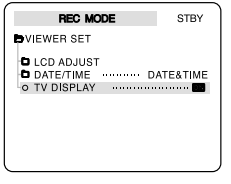
3. Press the DOWN button to select “VIEWER”, then press the OK button.
   - The submenu including “TV DISPLAY” is displayed.

4. Press the DOWN button to select “TV DISPLAY”.
   - “TV DISPLAY” menu item is highlighted.

5. Select your option by pressing the OK button.
   - Each press of the OK button toggles between ON and OFF.

6. Press the MENU button to exit the menu screen.





Reference

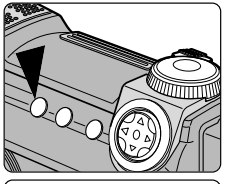
- For connection to a TV, refer to page 145.

The Camcorder : Functions

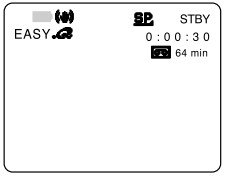
Using EASYQ Mode

- EASYQ mode only works in REC mode.
- EASYQ allows the user to easily make quality recordings.

1. Turn on your camcorder and set the Power Switch to REC mode.



2. Press the EASYQ button to enter EASYQ mode.
   - EASYQ will appear on the LCD along with Battery Level Display, STBY, Counter, and DIS.



3. Press the START/STOP or PHOTO button to start recording.
   - Recording will begin when the red REC ● indicator appears on the screen.

4. Press the EASYQ button again to turn EASYQ mode Off.
   - The camcorder will return to the previous settings.

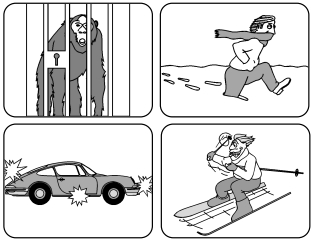
Reference

- EASYQ mode will not turn off during a recording.
- EASYQ mode setting is reset when the battery pack is removed from the camcorder.
- In EASYQ mode, certain functions including MENU, BLC, MF/AF are not available. If you want to take advantage of such functions, turn EASYQ mode Off.

The Camcorder : Functions

Manual Focus / Auto Focus (MF/AF)

- **MF/AF** mode only works in REC mode.
- In most situations, you will obtain the best results using AF (Auto Focus).
- Manual Focus may not be the optimum setting for everyday filming.
- Manual Focus allows the user to obtain clearer pictures under certain conditions that make automatic focusing difficult and/or unreliable.



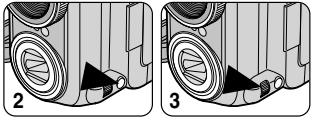
Auto Focusing

- In REC mode, the camcorder will be set to Automatic Focus when the Camcorder is turned On.

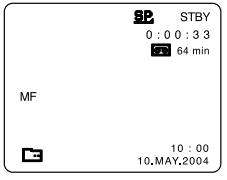
Manual Focusing

- In the following cases, you may obtain better results by adjusting the focus manually.

a. A picture containing several objects where some objects are close to the camcorder and others are farther away.
b. A person enveloped in fog or surrounded by snow.
c. Very shiny or glossy surfaces like a car.
d. People or objects moving constantly or quickly like at an athletic event or in a crowd.



1. Turn your camcorder on by setting the Power Switch to REC mode.
2. Press the MF/AF button.
   - **MF** icon is displayed on the LCD screen.
3. Turn the Navigation Wheel to manually adjust the focus until the subject is sharp. If you can't obtain clear focus on the subject, try turning the Navigation Wheel in the opposite direction.
4. To return to AF (Auto Focus), press the MF/AF button again.
   - **MF** icon disappears and the camcorder returns to Auto Focus mode.



Reference

- Manual Focus is not available in the EASYQ mode.

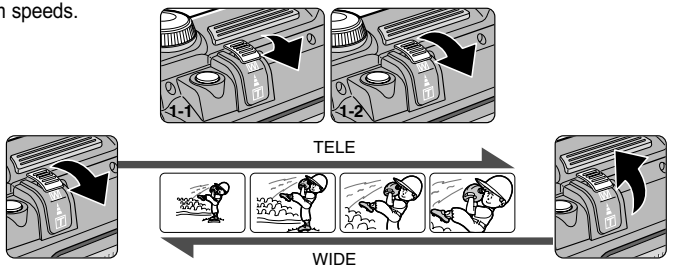
The Camcorder : Functions

Zooming In and Out with the Digital Zoom

- Your camcorder supports 10x optical and digital zooming that can produce 900x zooming in total. Zooming is a technique that lets you change the size of the subject captured in a scene. Moderate and slow operation of the zoom helps to create more professional looking recordings.

Zooming In and Out

- You can zoom in and out using variable zoom speeds.
- Use these features for different shots. Please note that over-use of the Zoom feature can lead to unprofessional looking results and faster consumption of battery power.



1. Move the zoom lever slowly for a gradual zoom; move it faster for a high-speed zoom.
2. The subject will appear closer when you pull the Zoom Lever toward the T (Tele) side. The subject appears farther away when you push the Zoom Lever toward the W (Wide) side.

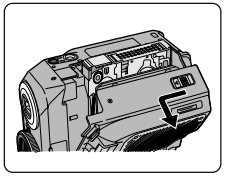
Reference

- You can record a subject at least 80cm away from the lens surface in the TELE position, or about 4cm away from the lens surface in the WIDE position.
- Frequent use of zooming may result in faster battery power consumption.
- Slow and smooth manipulation of Zoom lever is a very useful technique when recording. Rapid zoom movement may cause unclear focusing, and produce motion in the clip that makes viewing uneasy.
- Refer to page 128 on Zooming for Camera use of this unit.

The Camcorder : Basic Recording

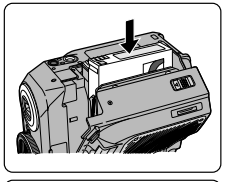
Inserting and Ejecting a Cassette

- Do not apply excessive force when inserting a cassette or closing the cassette holder, as it may damage the moving parts.
- Do not use any tapes other than MiniDV cassettes.



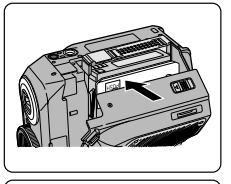
Inserting a Cassette

1. Turn on your Camcorder, then slide the TAPE EJECT button on the bottom of the camcorder and open the cassette door until it clicks.
   - The cassette holder automatically rises and opens forward.
2. Insert a tape into the cassette holder with the tape window facing outward and the protection tab toward the top.
3. Press the [PUSH] label on the cassette holder and wait until it clicks and goes back into place. Do not apply excessive force or pressure on the cassette holder. Do not forcibly push the cassette holder into the camcorder.
   - The cassette is automatically loaded.
4. Close the cassette door.



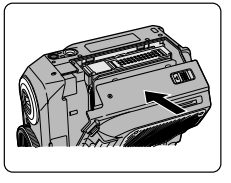
Ejecting a Cassette

1. Slide the TAPE EJECT button to open the Cassette holder and open the cassette door until it clicks.
2. Remove the cassette tape, which is automatically ejected by pulling the cassette out.
3. Press the [PUSH] label on the cassette holder and wait until it clicks and goes back into place.
4. Close the cassette door.



Reference

- Cautions on Tape Storage: Avoid places with magnets or magnetic fields. Avoid humidity and dust prone places. Keep the tape in an upright position and avoid storing it in direct sunlight.

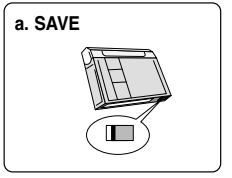


The Camcorder : Basic Recording

Protecting a Cassette

❖ When you have recorded something that you wish to keep, you can protect from being accidentally erased .

a. Protecting a Cassette:
Push the Write Protect Tab on the cassette so that the hole is uncovered.
b. Removing Cassette Protection:
If you no longer wish to keep the recording on the cassette, push the Write Protect Tab back so that it covers the hole.



Reference

❖ Avoid places with magnets or magnetic interference for cassette tape storage. Electromagnetic fields may affect the recordings.
❖ Avoid humid and dew prone places.
❖ Keep the cassette in an upright position and avoid storing it in direct sunlight.
❖ Avoid dropping your cassette tapes.

The Camcorder : Basic Recording

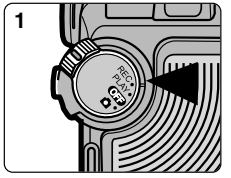
Making Your First Recording

Recording

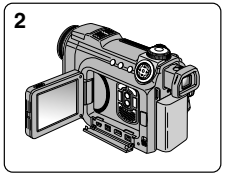
Before you begin!

- Insert the Lithium Ion Battery (refer to page 28)
- Charge your battery (refer to page 28)
- Set the Clock (refer to page 38)
- Insert a cassette tape (refer to page 47)

1. Turn on your camcorder and set the Power Switch to REC mode.

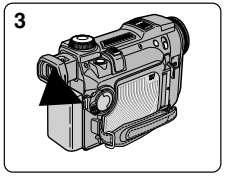


2. Open the LCD or viewfinder and frame your subject on the screen.



3. To Start recording, press the START/STOP button.
   - The REC● indicator is displayed on LCD.

4. To Stop recording, press the START/STOP button again.
   - The STBY indicator is displayed on LCD.



Reference

- If the Write Protection Tab on the cassette tape is set to protect, the “PROTECTION!” message appears on the screen. Release the Write Protection Tab to record.
- Detach the Battery Pack when you finished recording to prevent unnecessary battery power consumption.

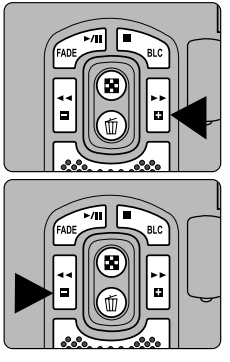
The Camcorder : Basic Recording

When a cassette is loaded and the camcorder is left in STBY under REC mode for more than 5 minutes without being used, it will switch off automatically.
To resume the camcorder, press the START/STOP button or set the Power Switch to off shortly and then set it back to REC mode.
This Auto Power Cut feature is designed to save the battery power.

Record Search (REC SEARCH)

- You can view a recording using the REC SEARCH +, – function while in STBY mode.
  - REC SEARCH – enables you to play the recording backwards and
  - REC SEARCH + enables you to play it forwards, for as long as you keep either button pressed down.

- If you press the REC SEARCH – button just once while in STBY mode, your camcorder will play in reverse for 3 seconds and then automatically return to the original position.



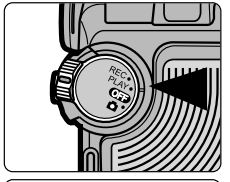
Reference

- Mosaic shaped distortion may appear on the screen while in Record Search mode.

The Camcorder : Basic Recording

Playing Back a Tape You Have Recorded Using the LCD Monitor

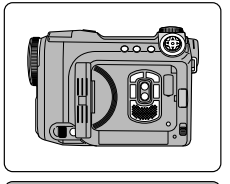
- You can monitor the recorded image on the LCD monitor.



1. Turn on your camcorder and set the Power Switch to PLAY mode.

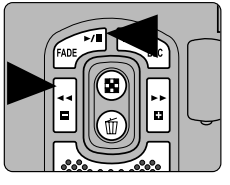
2. Insert the tape you want to playback (refer to page 47).

3. Open the LCD monitor and adjust the angle of the screen. Adjust the LCD Brightness or Colour if necessary (refer to page 33).



4. Press the ◀◀ (REW) button to rewind the tape to the desired viewing point.
   To stop rewinding, press the ■ (STOP) button. The camcorder will automatically stop rewinding when the tape is fully rewound.

5. Press the ▶/II (PLAY/STILL) button to start the playback.
   You can view the recording on the LCD.
   To stop the playback, press the ■ (STOP) button.



Reference

- You can also view the recording on a TV screen, by connecting the camcorder to a TV or VCR (refer to page 145).
- For searching and viewing still images recorded onto tape, refer to page 76.
- Various functions are available in PLAY mode (refer to page 74).

The Camcorder : Advanced Recording

Programmed Automatic Exposure Modes (PROGRAM AE)

- The Program AE function works only in REC mode.
- It allows you to adjust the shutter speed and aperture setting to suit different recording conditions as well as allowing creative control over the depth of field.
- The available Program AE modes are:

AUTO
Auto balance between the subject and background to get the best result. Suitable for most conditions. The shutter speed automatically varies from 1/50 to 1/250 per second, depending on the scene.

SPORTS
For recording fast moving people or objects. This mode is suitable for sports events, and recording the outside from the inside of a moving vehicle.

PORTRAIT
For focusing the background of a subject, when the background is out of focus. This mode is most effective when used outdoors. The shutter speed automatically varies from 1/50 to 1/1000 per second.

SPOTLIGHT
Compensates for a subject that may otherwise appear too bright when shooting under extremely strong direct lighting such as spotlights. It is suitable for recording indoor events such as concerts and school performances.

SAND/SNOW
SAND/SNOW mode creates good results when the ambient light is very strong such as on a beach shore or in the snow.

HIGH S.SPEED
High Shutter Speed mode. This setting allows fast-moving images to be captured one frame at a time, for vivid, stable slowmotion playback. It is useful for slowmotion playback of fast moving objects such as a golf player's swing.

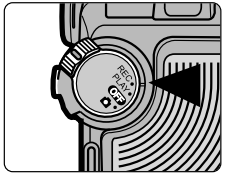
Reference

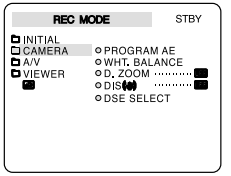
- Program AE functions are not available in EASYQ mode.
- NIGHT CAPTURE and Program AE cannot be used at the same time.

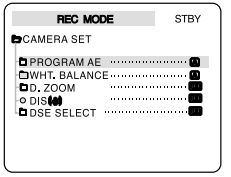
The Camcorder : Advanced Recording

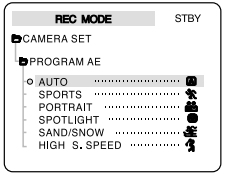
Setting the PROGRAM AE

1. Turn on your camcorder and set the Power Switch to the REC mode.
2. Press the MENU button.
   - The top menu including “CAMERA” is displayed.
3. Press the DOWN button to select “CAMERA”, then press the OK button.
   - The submenu including “PROGRAM AE” is displayed.
4. Press the OK button to select “PROGRAM AE”.
   - The available options are listed.
5. Select an option by pressing the DOWN or UP button, then press the OK button.
   - The selected option is applied.
6. Press the MENU button to exit the menu screen.
   - The selected PROGRAM AE indicator appears on the LCD screen.









Reference

❖ No indicator will appear on the LCD screen when AUTO mode is selected.

The Camcorder : Advanced Recording

Setting the White Balance for Camcorder Use (WHT.BALANCE)

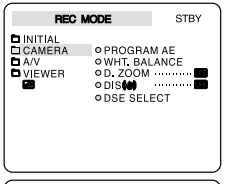
- The CCD (Charge Coupled Device) determines colour using colour temperature, White Balance is a tool used to adapt video equipment to the colour temperature of the dominant light source in a given scene/environment. By adjusting the White Balance, a white surface will again appear white in the recording no matter what the lighting situation.
- Both Auto and Preset White Balance are provided and will maintain optimum colour balance in most lighting conditions. However, when using digital functions or in certain situations, you may get better results using the manual adjustment.

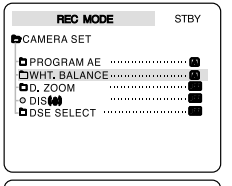
AUTO : Automatically maintains optimum colour balance in most lighting conditions.

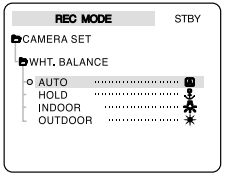
HOLD : Keeps the current White Balance

INDOOR : When the light source is standard indoor lighting.

OUTDOOR : When recording outdoors on a sunny day.







1. Turn on your camcorder and set the Power Switch to REC mode.
2. Press the MENU button.
   - The top menu including “CAMERA” is displayed.
3. Press the DOWN button to select “CAMERA”, then press the OK button.
   - The submenu including “WHT.BALANCE” is displayed.
4. Press the DOWN button to select “WHT.BALANCE”, then press the OK button.
   - The available White Balance options are listed.

   AUTO – HOLD – INDOOR – OUTDOOR
5. Select an option using the UP or DOWN button, then press the OK button.
   - The selected option is applied.
6. Press the MENU button to exit the menu screen.
   - The selected WHT.BALANCE appears on the LCD screen.

Reference

- WHT.BALANCE and NIGHT CAPTURE modes cannot be used at the same time.
- WHT.BALANCE mode is not available in EASYQ mode.
- Turn the Digital Zoom off for more accurate White Balance setting.
- For normal outdoor recording, setting the White Balance to AUTO may provide the best results.

The Camcorder : Advanced Recording

Setting the Digital Zoom for Camcorder Use (D. ZOOM)

1. Turn on your camcorder and set the Power Switch to REC mode.

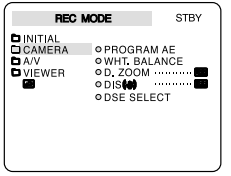
2. Press the MENU button.
   ■ The top menu including “CAMERA” is displayed.

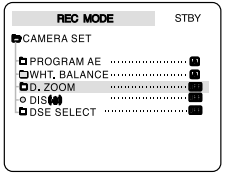
3. Press the DOWN button to select “CAMERA”, then press the OK button.
   ■ The submenu including “D.ZOOM” is displayed.

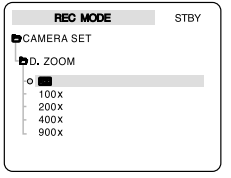
4. Press the DOWN button to select “D.ZOOM”, then press the OK button.
   ■ The available D.ZOOM options are listed.
   OFF – 100X – 200X – 400X – 900X

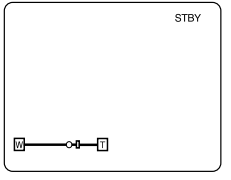
5. Select an option using the DOWN or UP button, then press the OK button.
   ■ The selected option is applied.

6. Press the MENU button to exit the menu screen.









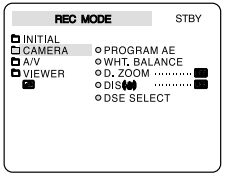
Reference

- Using the DIS function (refer to page 56) to obtain a more stable, clearer image when recording using the deep zoom.
- Maximum zooming may result in lower picture quality.

The Camcorder : Advanced Recording

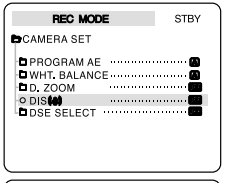
Setting the Digital Image Stabiliser (DIS)

- The Digital Image Stabiliser works only in REC mode.
- DIS is a function that, within reasonable limits, compensates for shaking movements produced when filming hand-held. DIS provides a more stable image when:
  - Recording with deep Zooming
  - Recording a close up picture of a small object
  - Recording while walking, or moving
  - Recording through the window, from inside a vehicle

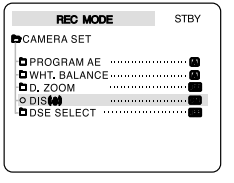


1. Turn on your camcorder and set the Power Switch to REC mode.

2. Press the MENU button.
   ■ The top menu including “CAMERA” is displayed.



3. Press the DOWN button to select “CAMERA”, then press the OK button.
   ■ The submenu including “DIS” is displayed.



4. Press the DOWN button to select “DIS”, then press the OK button to toggle the DIS mode between ON and OFF.

5. Press the MENU button to exit the menu screen.

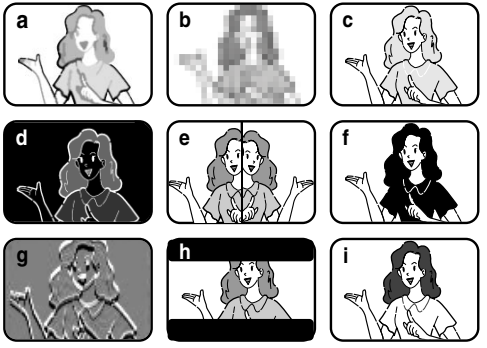
Reference

- It is recommended to turn DIS mode Off when recording using a tripod.
- EASYQ mode automatically sets the DIS to ON.

The Camcorder : Advanced Recording

Applying Digital Special Effects to Your Recording (DSE)

- The Digital Special Effect function works only in REC mode.
- You can select various special effects using the Digital Special Effects menu.
- Digital effects enable you to give a more creative look to your recordings. Select the appropriate digital effect for the type of picture that you wish to record and the effect you wish to create.
- Available Digital Special Effects:

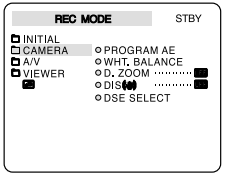


a. ART
   Artistic effects on your video.
b. MOSAIC
   A Mosaic overlay appears on your video
c. SEPIA
   Changes the colours to sepia tones, creating the look of old film
d. NEGA
   Reverses the colours, creating the look of a negative
e. MIRROR
   This mode cuts the picture in half, using a Mirror effect
f. BLK&WHT
   This mode changes the images into Black and White.
g. EMBOSS
   Embossing effect
h. CINEMA
   Cuts the top and bottom off to create a widescreen ratio
i. MAKE-UP
   This mode allows the image to be appear either Red, Green, Blue or Yellow in colour.

The Camcorder : Advanced Recording

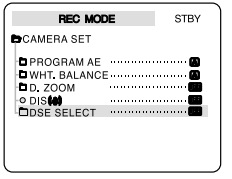
Selecting a Digital Special Effect in Camcorder Mode

1. Turn your camcorder on by setting the Power Switch to REC mode.



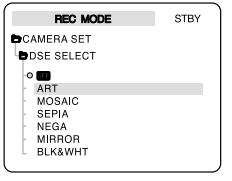
2. Press the MENU button.
   - The top menu including “CAMERA” is displayed.

3. Press the DOWN button to select “CAMERA”, then press the OK button.
   - The submenu including “DSE SELECT” is displayed.

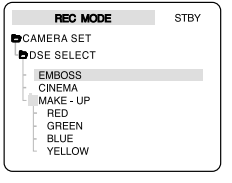


4. Press the DOWN button to select “DSE SELECT”, then press the OK button.
   - The available DSE SELECT options are listed.

5. Select you option by pressing the DOWN or UP button, then press the OK button.
   - The selected option is applied.



6. Press the MENU button to exit the menu screen.



Reference

- DSE and NIGHT CAPTURE cannot be used at the same time.
- DSE mode is not available in EASYQ mode.
- The selected DSE mode can be accessed through the Quick Menu by using the Navigation Wheel (refer to Quick Menu on page 68).

The Camcorder : Advanced Recording

Selecting the Record Mode for Camcorder Use

- You can select the Recording mode in the REC and PLAY (DV IN) modes of your camcorder.
- This camcorder records and plays back in SP (Standard Play) and LP (Long Play) modes.
  - SP: Standard Play, this mode permits 60 minutes of recording time with a normal DVM60 tape.
  - LP: Long Play, this mode permits 90 minutes of recording time with a normal DVM60 tape.

The following instructions show how to set in REC mode.

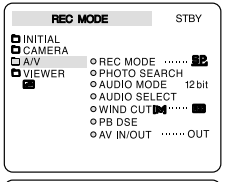
1. Turn your camcorder on by setting the Power Switch to REC mode.

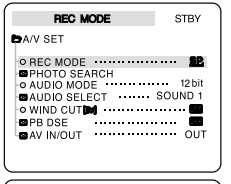
2. Press the MENU button.
   - The top menu including “A/V” is displayed.

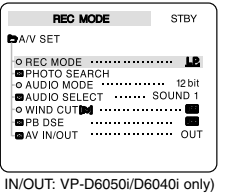
3. Press the DOWN button to select “A/V”, then press the OK button.
   - The submenu including “REC MODE” is displayed.

4. Press the DOWN or UP button to select “REC MODE”, then press the OK button.
   - Each press of the OK button toggles the REC MODE between SP and LP.

5. Press the MENU button to exit the menu screen.







(AV IN/OUT: VP-D6050i/D6040i only)

Reference

- Playback of a tape recorded by different equipment may produce mosaic shaped distortion.
- When you record a tape in both SP and LP modes, or only in LP mode, the playback picture may be distorted or the time code may not be properly written between scenes.
- Record using SP mode for the best picture and sound quality.

The Camcorder : Advanced Recording

Selecting the Audio Mode for Camcorder Use

- ❖ You can select the Audio recording mode in REC mode.
- ❖ This camcorder records audio signals in two ways.
  - 12bit: You can record two 12bit stereo sound tracks along with the tape. The original stereo sound can be recorded onto the MAIN (SOUND1) track and an additional soundtrack can be dubbed onto the SUB (SOUND2) track. For audio dubbing, refer to page 77.
  - 16bit: You can record one high quality stereo track using the 16bit recording mode. Audio dubbing is not available for video using 16bit sound.

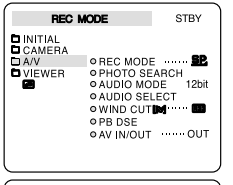
1. Turn your camcorder on by setting the Power Switch to REC mode.

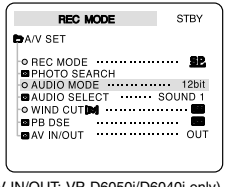
2. Press the MENU button.
   - ■ The top menu including “A/V” is displayed.

3. Press the DOWN button to select “A/V”, then press the OK button.
   - ■ The submenu including “AUDIO MODE” is displayed.

4. Press the DOWN or UP button to select “AUDIO MODE”, then press the OK button.
   - ■ Each press of the OK button toggles the AUDIO MODE between 12bit and 16bit.

5. Press the MENU button to exit the menu screen.





(AV IN/OUT: VP-D6050i/D6040i only)

The Camcorder : Advanced Recording

Cutting Off Wind Noise (WIND CUT)

- The WIND CUT function works only in Camcorder (REC and PLAY) modes.
- To reduce microphone wind noise, use the Wind Cut function.
- Use the Wind Cut function when recording in a windy place such as on the beach, in the mountains or near buildings.

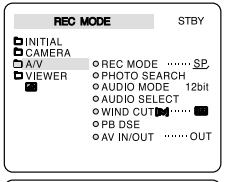
1. Turn on your camcorder by setting the Power Switch to REC mode.

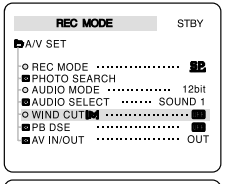
2. Press the MENU button.
   - The top menu including “A/V” is displayed.

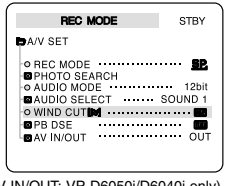
3. Press the DOWN button to select “A/V”, then press the OK button.
   - The submenu including “WIND CUT” is displayed.

4. Press the DOWN button to select “WIND CUT”, then press the OK button.
   - Each press of the OK button toggles the WIND CUT function between ON and OFF.
   - The [M](WIND CUT) appears on the LCD monitor if WIND CUT has been set to ON.

5. Press the MENU button to exit the menu screen.







(AV IN/OUT: VP-D6050i/D6040i only)

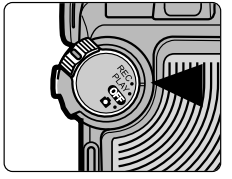
Reference

- When the Wind Cut function is set to ON, low pitched tones might be eliminated along with the wind noise.
- Be sure that Wind Cut is set to OFF when higher microphone sensitivity is required.

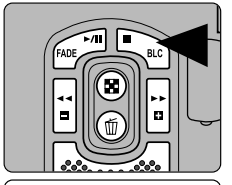
The Camcorder : Advanced Recording

Using Backlight Compensation Mode (BLC)

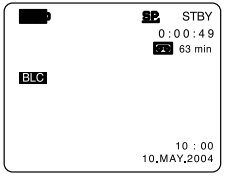
- The Back Light Compensation function works only in REC mode. The Back Light Compensation function helps to make the subject brighter when the light source is behind the subject, throwing their features into shadow, or when the subject is in the shade but the background is brightly lit.
- Use BLC when:
  - The subject is in front of a window
  - The subject is wearing white or shiny clothes and in front of a bright background; or the subject is too dark to distinguish his/her/their/its features
  - Outdoor filming with a bright background
  - The light source is too bright
  - The subject is against a snowy background



1. Turn your camcorder on by setting the Power Switch to REC mode.



2. Press the BLC ■ (STOP) button.
   ■ The BLC indicator **BLC** is displayed on the LCD screen.



3. To exit BLC mode, press the BLC ■ (STOP) button again.
   ■ Each press of the BLC ■ (STOP) button toggles the BLC function between ON and OFF.

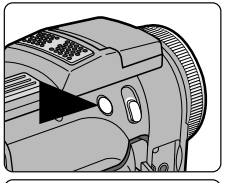
Reference

- BLC and NIGHT CAPTURE modes cannot be used at the same time.
- The BLC function is not available in EASYQ mode.

The Camcorder : Advanced Recording

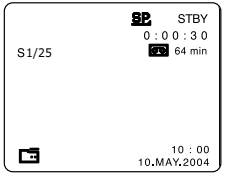
Setting the Slow Shutter Speed

- The Slow Shutter function works only in REC mode.
- The Slow Shutter allows the user to record dark subjects or in darker areas, making them even brighter than they would be under good natural lighting. A subject recorded using this function may appear to move slowly.



1. Turn your camcorder on by setting the Power Switch to REC mode.

2. Press the SLOW SHUTTER button.
   - Each press of the SLOW SHUTTER button sets the shutter speed to S1/25, S1/13, S1/6 and Normal.



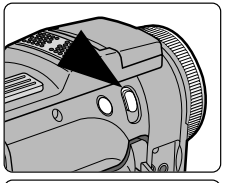
Reference

- The SLOW SHUTTER works only in REC mode.
- The SLOW SHUTTER function may produce a brighter image. The SLOW SHUTTER function allows users to get a brighter recording in dark environment.
- The SLOW SHUTTER and DIS (Digital Image Stabiliser) cannot be used at the same time.
- The SLOW SHUTTER and DIGITAL ZOOM cannot be used at the same time.

The Camcorder : Advanced Recording

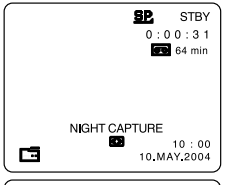
NIGHT CAPTURE

- The NIGHT CAPTURE function works only in REC mode.
- The NIGHT CAPTURE enables you to record subjects in dark lighting conditions.



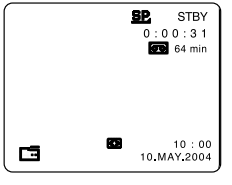
1. Turn your camcorder on by setting the Power Switch to REC mode.

2. Slide the NIGHT CAPTURE button upwards.
   - NIGHT CAPTURE and indicator will appear on the LCD monitor. The NIGHT CAPTURE message will disappear within 3 seconds.



3. Press the START/STOP button to start recording.

4. To exit the NIGHT CAPTURE mode, slide the NIGHT CAPTURE button downwards.
   - The indicator disappears.



Reference

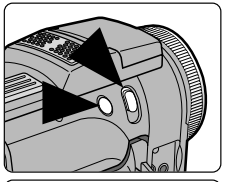
- The NIGHT CAPTURE and POWER NIGHT CAPTURE work only in the REC mode.
- Do not set the NIGHT CAPTURE to ON in bright lighting. It might damage the CCD (Charge Coupled Device).
- If you use the NIGHT CAPTURE function in normal recording situations (ex. outdoors in daylight), the recorded picture may be tinted green.
- Use manual focusing if you have an unclear image while using NIGHT CAPTURE.
- The maximum recording distance using Infrared light is about 9 feet (3m).
- NIGHT CAPTURE cannot be used with Manual Exposure, White Balance, Program AE, BLC, and DSE.

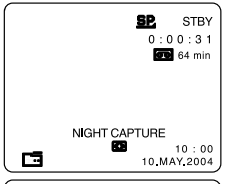
The Camcorder : Advanced Recording

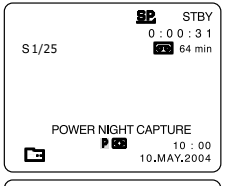
POWER NIGHT CAPTURE

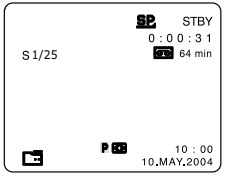
- The POWER NIGHT CAPTURE function works only in REC mode.
- With its maximum sensitivity, POWER NIGHT CAPTURE enables you to make dark subjects and areas brighter. POWER NIGHT CAPTURE works with the Slow Shutter function to produce brighter recordings under extremely dark lighting conditions.

1. Turn your camcorder on by setting the Power Switch to REC mode.
2. Slide the NIGHT CAPTURE button to upwards.
   - "NIGHT CAPTURE" and indicator will appear on the LCD monitor. The NIGHT CAPTURE message will disappear within 3 seconds.
3. Press the Slow Shutter button.
   - POWER NIGHT CAPTURE and **P** indicator will appear on the LCD monitor. The POWER NIGHT CAPTURE message will disappear within 3 seconds. The current shutter speed appears on the LCD monitor. Each press of the SLOW SHUTTER button toggles the mode between S1/25, S1/13, S1/6 and Normal shutter speeds. (Refer to page 63)
4. To return to NIGHT CAPTURE mode, press the SLOW SHUTTER button to select normal shutter speed.
   - The **P** indicator disappears while the indicator remains on the LCD monitor.
5. To exit NIGHT CAPTURE mode, slide the NIGHT CAPTURE button downwards.
   - The indicator disappears.









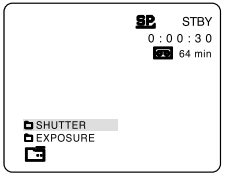
Reference

- NIGHT CAPTURE and POWER NIGHT CAPTURE work only in the REC mode.
- Do not set the POWER NIGHT CAPTURE to ON in bright lighting conditions.
- Using the POWER NIGHT CAPTURE under natural lighting may affect the colour balance.
- Use manual focusing if you have an unclear image while using POWER NIGHT CAPTURE mode.
- The maximum recording distance using Infrared light is about 9 feet (3m).
- POWER NIGHT CAPTURE is not available in EASYQ mode.
- POWER NIGHT CAPTURE cannot be used with Manual Exposure, White Balance, Program AE, BLC, DSE and Digital ZOOM.

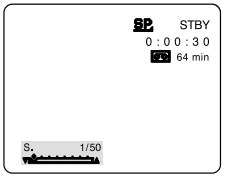
The Camcorder : Advanced Recording

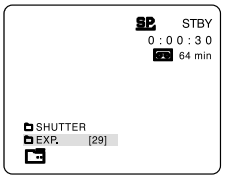
Setting the Shutter Speed and Exposure

- Shutter Speed function works only in REC mode.
- Adjusting the exposure and shutter speed helps the user to control the image to be recorded. Greater exposure results in a brighter image while shorter shutter speeds make the image darker.



1. Turn on your camcorder by setting the Power Switch to REC mode.
2. Turn the Navigation Wheel to select , then press the Navigation Wheel.
   - The Quick Menu including “SHUTTER” and “EXPOSURE” is displayed.
3. Turn the Navigation Wheel to select SHUTTER for shutter speed adjustment, or select “EXPOSURE” for exposure adjustment.
   - The Control Bar appears for the selected submenu.
4. Turn the Navigation Wheel for adjustment, then press the Navigation Wheel to set the adjustment.
   - The new value of your adjustment is applied.
   - Values for Shutter Speed: 1/50, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 second
   - Values for Exposure: 00 ~ 29
5. Press the START/STOP button to start recording. Note that the Manual Exposure and Shutter Speed are only applied while this menu appears on the LCD monitor.
6. Turn the Navigation Wheel to select , then press the Navigation Wheel to exit the menu screen.





Reference

- Do not frame the sun when you set the shutter speed to less than 1/1000 second. Slower shutter speeds expose the CCD to the light source and can damage the CCD.
- Slow shutter speed may produce discontinuous and uneven motion.
- Manual Exposure and Shutter Speed are not available in EASYQ mode.
- NIGHT CAPTURE and Manual Shutter Speed/Exposure cannot be applied at the same time.

The Camcorder : Advanced Recording

Using the Fade In / Out Function

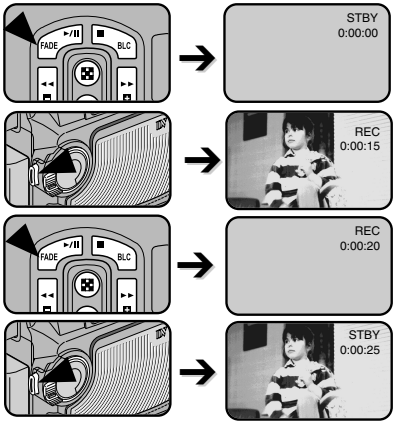
- The Fade In / Out function works only in REC mode.
- You can give your recordings more professional look by using special effects such as fading in at the beginning and fading out at the end of a sequence.

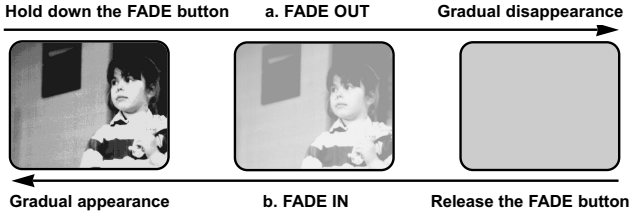
To Start Recording

1. Before recording, hold down the FADE button.
   - The picture and sound gradually disappear (fade out).
2. Press the START/STOP button and at the same time release the FADE button. Recording starts and the picture and sound gradually appear (fade in).

To Stop Recording (use FADE IN / FADE OUT)

3. When you wish to stop recording, hold down the FADE button.
   - The picture and sound gradually disappear (fade out).
4. When the picture has disappeared, press the START/STOP button to stop recording.





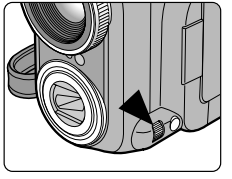
a. FADE OUT
(Approx. 4 seconds)

b. FADE IN
(Approx. 4 seconds)

The Camcorder : Advanced Recording

Setting Up and Using the Quick Menu

- The Quick Menu is only available in REC mode.
- Quick Menu is used to access camcorder functions by simply using the Navigation Wheel. Quick Menu provides easier access to the frequently used menus without using the MENU button.
- You can access the following functions by turning the Navigation Wheel:



■ DATE/TIME

- Changes the DATE/TIME stamp format that is displayed on screen.
- You can access this function using the MENU button (refer to page 39).

1. Turn the Navigation Wheel to select “DATE/TIME”.
2. To change the format, press the Navigation Wheel while the “DATE/TIME” is highlighted.

- Each press of the Navigation Wheel on the DATE/TIME menu changes the format in this order: DATE – TIME – DATE/TIME

■ WL.REMOTE( )

- Changes Wireless Remote Control acceptance.
- You can access this function using the MENU button (refer to page 40).

1. Turn the Navigation Wheel to select “WL.REMOTE( )”.
2. Each press of the Navigation Wheel on WL.REMOTE( ) toggles the Wireless Remote acceptance between ON and OFF.

■ DIS( )

- Anti-Shake function; turns the Digital Image Stabiliser function on and off.
- You can access this function using the MENU button (refer to page 56).

1. Turn the Navigation Wheel to select “DIS( )”.
2. Each press of the Navigation Wheel on DIS( ) toggles the Digital Image Stabiliser between ON and OFF.

The Camcorder : Advanced Recording

■ DSE (Digital Special Effects)

- Provides a quick way to access the Digital Special Effects.
- Using the Navigation Wheel, you can quickly set and release the special effect for your filming. Pressing the Navigation Wheel while DSE is highlighted will toggle the DSE between OFF and the selected DSE mode. (refer to page 57)

1. Turn the Navigation Wheel to select “DSE”.
2. Each press of the Navigation Wheel on the “DSE” menu toggles the DSE mode between OFF and preset DSE selection.

- If there is no preset DSE selection, “OFF” is the only available option.

■ PROGRAM AE

- Provides a quick way to access the PROGRAM AE settings.
- Using the Navigation Wheel, you can quickly set and release the PROGRAM AE for your filming. Pressing the Navigation Wheel while PROGRAM AE is highlighted will toggle between the selected PROGRAM AE mode and Ⓐ (Auto) (refer to page 52).

1. Turn the Navigation Wheel to select “PROGRAM AE”.
2. Each press of the Navigation Wheel on the “PROGRAM AE” menu toggles the PROGRAM AE mode between Ⓐ (Auto) and the preset PROGRAM AE selection.

- If there is no preset PROGRAM AE selection, “Ⓐ” (Auto) is the only available option.

■ WHT.BALANCE

- Provides quick way to access the White Balance settings.
- Using the Navigation Wheel, you can quickly set and release the custom WHT.BALANCE for your filming. Pressing the Navigation Wheel while the WHT.BALANCE is highlighted will toggle between the selected WHT.BALANCE and Ⓐ (Auto) (refer to page 54).

1. Turn the Navigation Wheel to select “WHT.BALANCE”.
2. Each press of the Navigation Wheel on the “WHT.BALANCE” menu toggles the White Balance between Ⓐ (Auto) and the preset White Balance selection.

- If there is no preset WHT.BALANCE selection, “Ⓐ”(Auto) is the only available option.

The Camcorder : Advanced Recording

■ SHUTTER

- Provides a quick way to access the SHUTTER Speed Settings.

1. Turn the Navigation Wheel (Quick Menu) to select the Navigator icon ( ).
2. Press the Navigation Wheel (Quick Menu) to select “SHUTTER”.
   - ■ The adjustable Shutter Speed control bar appears on the screen.
3. Adjust the Shutter Speed by turning the Navigation Wheel (Quick Menu).
   - ■ The range of Shutter Speeds: 1/50 ~ 1/10000 (8 steps)
4. Press the Navigation Wheel (Quick Menu) to select the adjusted Shutter Speed.
   - ■ S. [Value] is displayed.

■ EXPOSURE

- Provides a quick way to access the EXPOSURE settings.

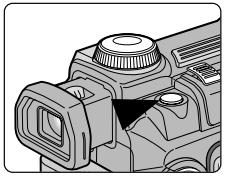
1. Turn the Navigation Wheel (Quick Menu) to select the Navigator icon ( ).
2. Press the Navigation Wheel (Quick Menu) to select “EXPOSURE”.
   - ■ The adjustable Exposure control bar appears on the screen.
3. Adjust the EXPOSURE by turning the Navigation Wheel (Quick Menu).
   - ■ The range of Exposure Values: 00 ~ 29 (30 steps)
4. Press the Navigation Wheel (Quick Menu) to select the adjusted Exposure Value.
   - ■ EXP. [Value] is displayed.

Reference

❖ The Quick Menu is not available in EASYQ mode.

The Camcorder : Advanced Recording

Taking Photos



- You may take still images while in REC mode and store the images on tape. This function is useful when you want to take a snapshot of a subject while you are using the Camcorder.
- If you want to take a higher resolution still image, switch to (CAMERA) mode (refer to page 99).
- You can take photos using the remote control.
- You can search still pictures recorded on a tape (refer to page 76).

1. Turn your camcorder on by setting the Power Switch to REC mode.
   - The STBY indicator appears on the LCD monitor.

2. Press the PHOTO button halfway down to focus the image.
   - The indicator appears on the LCD monitor.

3. Within 2 seconds, fully press down the PHOTO button and then release it to record the picture.
   If you do not want to record, release the PHOTO button before fully pressing it down.
   - It takes about 6 ~ 7 seconds to record the still image onto the tape.

4. The camcorder returns to STBY (Stand-by) mode.

Reference

- Pressing the PHOTO button while recording stops the recording and saves the still image captured at that moment. It takes approx. 6 ~ 7 seconds to save the image and then resumes the recording.
- You can use the remote control to take a photo by using the PHOTO button on the remote control. Pressing the PHOTO button on the remote control records the still image at once with automatic focusing.

The Camcorder : Advanced Recording

Various Recording Techniques

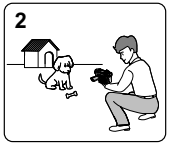
❖ In some situations, different recording techniques may be required for more dramatic results.

1. General Recording

Suitable for most recording situations.

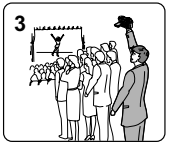
2. Downward Recording

Make a recording while viewing the LCD monitor from above.



3. Upward Recording

Make a recording while viewing the LCD monitor from below.



4. Self Recording

Make a recording while viewing the LCD monitor from the front.

5. Recording with the Viewfinder

In circumstances where it is difficult to use or see the LCD monitor clearly, using the viewfinder is a convenient alternative.

The Camcorder : Playback

Playing Back a Recorded Tape

- The tape playback functions work only in PLAY mode.

Playback on the LCD Monitor

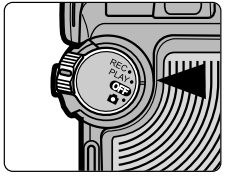
- It is handy and practical to view a tape using the LCD monitor almost anywhere (i.e. in a car, indoors, or outdoors).

Playback on a TV Monitor

- To display a recorded tape on a TV, the television set needs to comply with the Colour System (NTSC/PAL).
- It is recommended to use the AC Power Adapter and Cable as the power source for the camcorder.
  For instructions on connecting the AC Power Adapter and Cable to your camcorder, refer to page 27.
- Refer to page 145 for instructions on connecting your Camcorder to a TV set.

Playback

1. Connect a power source and set the Power Switch to PLAY mode.
2. Insert the tape you wish to play back.
3. Using the ▶▶ (FF) button or ◀◀ (REW) buttons, find the first position you wish to play back.
4. Press the ▶/II (PLAY/STILL) button.
   - The images you recorded will appear on the TV after a few seconds.
   - If a tape reaches its end while being played back, the tape will rewind automatically.



Reference

- The playback mode (SP/LP) is automatically selected.

The Camcorder : Playback

Various Functions in PLAY modes

- The ▶/II (PLAY/STILL), ■ (STOP), ▶▶ (FF) , ◀◀ (REW) buttons are located both on the Camcorder and the Remote Control.
- The F.ADV (Frame advance), I► (SLOW) buttons are located only on the Remote Control.
- To prevent tape and head-drum wear, your Camcorder will automatically stop if it is left in STILL or SLOW modes for more than 5 minutes.

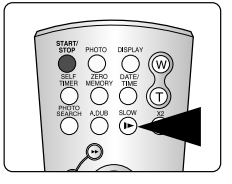
Playback Pause

- Press the ▶/II (PLAY/STILL) button during the playback.
- To resume the playback, press the ▶/II (PLAY/STILL) button again.

Picture Search – Forward/Reverse

- Press the ▶▶ (FF) button or ◀◀ (REW) button once during the playback or while in STILL mode. To resume the playback, press the ▶/II (PLAY/STILL) button.
- Press and hold the ▶▶ (FF) button or ◀◀ (REW) button during playback or while in STILL mode. To resume the playback, release the button.

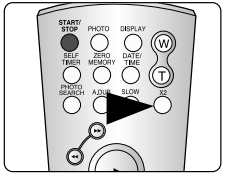
Slow Playback – Forward/Reverse



- Forward Slow Playback
  - Press the I► (SLOW) button on the remote control during playback.
  - To return to normal speed, press the ▶/II (PLAY/STILL) button
- Reverse Slow Playback
  - Press the ◀II (-) button during Forward Slow Playback.
  - To resume forward slow playback, press the II▶ (+) button.
  - To return to normal speed, press the ▶/II (PLAY/STILL) button

The Camcorder : Playback

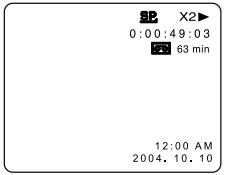
X2 Playback (Forward/Reverse)



❖ You can playback your recording at 2x normal speed using the X2 button on the remote control.

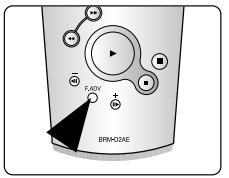
❖ Forward X2 Playback
- Press the X2 button on the Remote Control during Playback.
- To resume normal playback, press the ▶/II (PLAY/STILL) button.

❖ Reverse X2 Playback
- Press the ◀II (-) button during Forward X2 Playback.
- To resume normal playback, press the ▶/II (PLAY/STILL) button.



Frame Advance – Frame by Frame Playback

- Press the F.ADV button on the remote control while in Still mode. The F.ADV function works only in Still mode.
- To return to normal playback, press the ▶/II (PLAY/STILL) button.



❖ Forward Frame Advance
- Press the F.ADV button on the remote control while in Still mode to begin the forward frame advance.

❖ Reverse Frame Advance
- Press the ◀II (-) button on the remote control to reverse the frame advance direction while in Still mode.

Reference

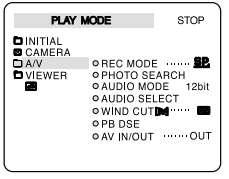
❖ Mosaic shaped distortion may appear on the screen while in some of the playback modes if you are using a tape recorded in LP.

❖ Sound will only be heard during normal SP or LP playback.

The Camcorder : Playback

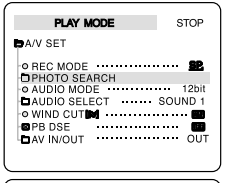
Searching Still Images

- Searching the Still Images recorded on a tape works only in PLAY mode.
- Recorded Still Images are played back using stop-motion.



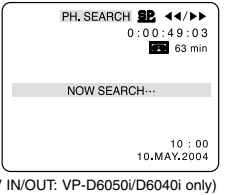
1. Turn your camcorder on by setting the Power Switch to PLAY mode.

2. Press the MENU button.
   - The top menu including “A/V” is displayed.



3. Press the DOWN button to select “A/V”, then press the OK button.
   - The submenu including “PHOTO SEARCH” is displayed.

4. Press the DOWN button to select “PHOTO SEARCH”, then press the OK button.
   - The ◀◀/ ▶▶ indicator flashes on the LCD monitor.



5. Press the ◀◀(REW) or ▶▶(FF) button to begin the search in given direction.
   - The ◀◀/ ▶▶ indicator and “NOW SEARCH···” message appear on the LCD monitor and the search begins.
   - The PHOTO SEARCH will stop after one still image has been found. To begin another search, press the ◀◀ or ▶▶ button.

6. To stop the search, press the ■ (STOP) button.

(AV IN/OUT: VP-D6050i/D6040i only)

Reference

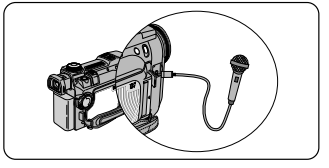
- When there are no still images recorded on the tape, it will be fully rewound or forwarded.

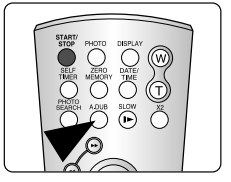
The Camcorder : Playback

Dubbing an Additional Sound Track to Your Recording

- Audio Dubbing works only in PLAY mode.
- You can dub additional audio to your recordings using the remote control. Dubbing is supported only when the recorded image has been recorded in SP (Standard Play) mode using the 12-bit settings for audio.
- This function is useful for adding narration to your recordings. The original sound will not be erased.

Dubbing the Sound





1. Turn your camcorder on by setting the Power Switch to PLAY mode.
2. Move to the desired starting position of the recorded video using ◀◀(REW), ▶▶(FF) or ▶/II(PLAY/STILL) buttons.
3. Press the ▶/II(PLAY/STILL) button to pause at the starting point.
4. Press the A.DUB button on the remote control.
   - The “A.DUB” message appears on the LCD monitor and the camcorder is ready for dubbing.
5. Press the ▶/II(PLAY/STILL) button to start dubbing.
6. To stop the audio dubbing, press the ■ (STOP) button.

Reference

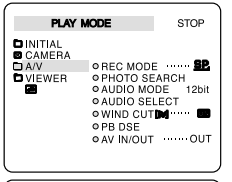
- Audio Dubbing is not available when using protected tapes. To release the protection, refer to page 48.
- Audio Dubbing is not available for recordings using 16-bit sound.
- Audio Dubbing is not available for recordings made in LP mode.
- To utilize an external MIC or sound source, connect a microphone to the MIC jack or use the Multi-AV cable for external sound source input.
- To dub an external sound source, set the AV Input/Output function to AV IN (VP-D6050i/D6040i only. Refer to page 148).

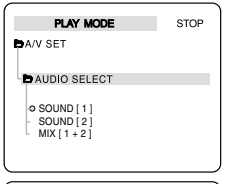
The Camcorder : Playback

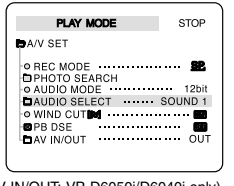
Playing Dubbed Sound

You may select the audio track to be played back.

1. Turn your camcorder on by setting the Power Switch to PLAY mode.
2. Move to the position of recorded video that has dubbed audio track by using the ◀◀ (REW), ▶▶ (FF) or ►/II (PLAY/STILL) buttons.
3. Press the MENU button.
   - The top menu including “A/V” is displayed.
4. Press the DOWN button to select “A/V”, then press the OK button.
   - The submenu including “AUDIO SELECT” is displayed.
5. Press the DOWN button to select “AUDIO SELECT”, then press the OK button.
   - The available AUDIO SELECT options are listed.
   - SOUND[1]: Main Audio Track only, plays only the original audio.
   - SOUND[2]: Additional Audio Track only, plays only the dubbed audio.
   - MIX[1+2]: Mixed Audio Tracks, plays both the original and the dubbed audio.
6. Select your option by pressing the DOWN or UP button, then press the OK button.
   - The selected option is applied.
7. Press the MENU button to exit the menu screen.
8. Press the ►/II (PLAY/STILL) button to begin the playback.
   - The selected Audio Tracks are played back.







(AV IN/OUT: VP-D6050i/D6040i only)

The Camcorder : Playback

Setting the Zero Memory on the Tape (Ending Position)

- The ZERO MEMORY function works in both REC and PLAY modes.
- On a tape, you can mark a point that you want to return to following playback.

1. Press the ZERO MEMORY button on the remote control during playback or before recording at the point you wish to return to.
   - The time code is changed to a tape counter which is set to Zero Memory with the 0:00:00 (Zero Memory Indicator).
   - If you want to cancel the Zero Memory function, press the ZERO MEMORY button again.

2. Finding the Zero Position.
   - When you have finished with the playback, fast forward or rewind the tape.
     - The tape automatically stops when it reaches the Zero Position.
   - When you have finished recording, Set the Power Switch to the PLAY mode, then press the ◀◀(REW) button.
     - The tape automatically stops when it reaches the Zero Position.
3. The tape counter with the M(Zero Memory Indicator) disappears from the display and the tape counter is changed back to time code.

Reference

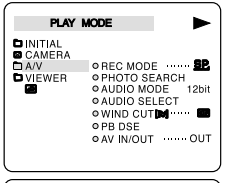
- In the following situations, ZERO MEMORY marked positions will be automatically released:
  - At the end of the section marked with the ZERO MEMORY function.
  - When the tape is ejected.
  - When you remove the battery pack or power supply.
- The Zero Memory may not function correctly when there is a break between recordings on the tape.

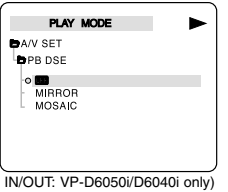
The Camcorder : Playback

PB DSE - Applying Digital Special Effects to Your Recording During Playback

- The PB DSE function works only in PLAY mode.
- The PB DSE function allows the user to apply digital effects to recorded video and still pictures.

1. Turn on your camcorder by setting the Power Switch to PLAY mode.
2. Press the ▶/II (PLAY/STILL) button to start the playback.
3. Press the MENU button during the playback.
   - The top menu including “A/V” is displayed.
4. Press the DOWN button to select “A/V”, then press the OK button.
   - The submenu including “PB DSE” is displayed.
5. Press the DOWN button to select “PB DSE”, then press the OK button.
   - The available options are listed: OFF, MOSAIC and MIRROR.
6. Select an option by pressing the DOWN or UP button, then press the OK button.
   - The selected option is applied to your playback.
7. Press the MENU button to exit the menu screen.
8. To cancel applied PB DSE, set the PB DSE to OFF or press the ■ (STOP) button.





(AV IN/OUT: VP-D6050i/D6040i only)

Reference

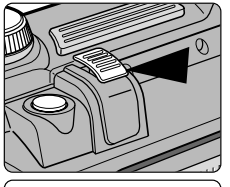
- You cannot apply PB DSE to pictures being input from an external video source (VP-D6050i/D6040i).
- Once you modify an image using the PB DSE function, it cannot be exported to a PC using the camcorder’s DV (IEEE 1394) connection.

The Camcorder : Playback

PB ZOOM- Zooming During Playback

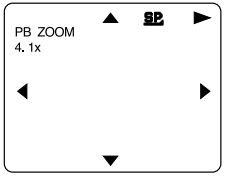
- The PB ZOOM function works only in PLAY mode.
- The PB ZOOM function allows the user to zoom in or out on recorded image and still pictures.
- The Zooming Range for PLAY mode: 1.2 ~ 8.0x

1. Turn on your camcorder by setting the Power Switch to PLAY mode.



2. During playback, zoom in or zoom out using the Zoom Lever.
   - The image is magnified or reduced to scale.

3. To move around the enlarged image, press the LEFT, RIGHT, UP or DOWN button.



4. To cancel the PB ZOOM function, press the ■ (STOP) button.
   - You can Zoom out to 1.2x and push the Zoom lever further to cancel the PB ZOOM.

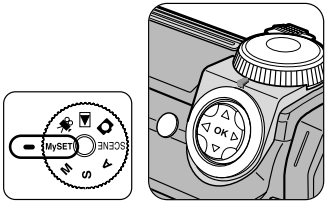
Reference

- You cannot apply the PB ZOOM function to pictures being input from an external video source (VP-D6050i/D6040i).
- The PB ZOOM images cannot be exported to a PC.

The Camera : Preparation

Using the Mode Dial

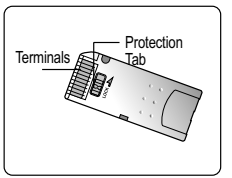
- Turn the Mode Dial to select a Camera mode by setting the selector as illustrated.
- Available Camera Modes are:



- (PROGRAM): Sets aperture and shutter speed automatically for the user's convenience, other settings are free to set by manual
- SCENE: Preset Automatic Modes that contains predefined settings
- A: Aperture Priority Mode
- S: Shutter Speed Priority Mode
- M: Full Manual Mode, you can customize options to suit your needs
- MySET: Saves and Loads your frequent settings
- (Movie): Movie Mode, records motion clips into the memory card
- (PLAY): Playback Mode (for still image and motion clip)

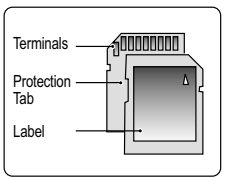
Using the Memory Card

- MMC, SD Memory Card, Memory Stick and Memory Stick Pro are compatible with the VP-D6050(i)/D6040(i).
- The Memory Card stores and manages still images recorded by the camera.
- Before inserting or ejecting the Memory Card, turn the Camcorder OFF.



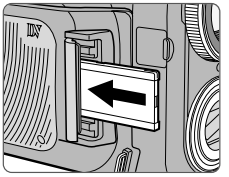
Memory Card Functions

- Recording / Viewing Still Images
- Protecting Images from accidental erasure (except MMC)
- Deleting Still Images stored in the Memory Card
- Marking Still Images with Print Information
- Formatting Memory Cards



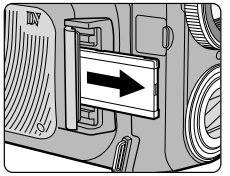
The Camera : Preparation

Inserting a Memory Card



1. Open the Memory Slot lid.
2. Insert the Memory Card into the Slot until it softly clicks.
3. Close the Memory Slot.

Ejecting a Memory Card



1. Open the Memory Slot lid.
2. Slightly push the Memory Card inwards to pop it out.
3. Pull the Memory Card out of the slot and close the lid.

Reference

- Do not apply excessive force when you insert / eject the Memory Card.
- Do not turn the power off while recording, loading, erasing still picture or formatting the Memory Card.
- Please turn the power off before you insert or eject the Memory Card to avoid losing data.
- Do not place the Memory Card near a strong electro-magnetic device.
- Do not allow metal substances to come in contact with the terminals on the Memory Card.
- Do not bend the Memory Card.
- After pulling the card out from the camcorder, keep the Memory Cards in a soft case to prevent static shock.
- The data stored on the card may be changed or lost as a result of misuse, static electricity, electric noise or repair. Save important images separately.
- Samsung is not responsible for data loss due to misuse.

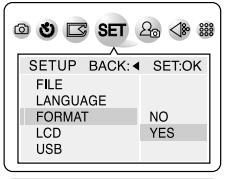
MEMORY STICK TM

- Memory Stick and MEMORY STICK TM are trademarks of Sony Corporation.
- All other product names mentioned herein may be the trademarks or registered trademarks of their respective companies. “TM” will not be mentioned in every instance in this manual.

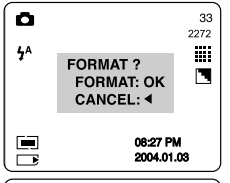
The Camera : Preparation

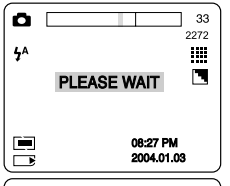
Formatting a Memory Card

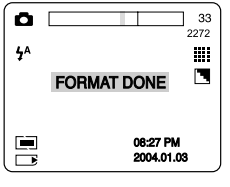
- You can use the FORMAT function to completely delete all still images/motion clips and options on the Memory Card, including protected still images/motion clips.
- The format function restores the Memory Card to its initial state.
- The Memory Stick supplied with this camcorder has been formatted already.



1. Turn your camera on by setting the Power Switch to (CAMERA) mode.
2. Press the MENU button.
   - The top menu including SET (SET) is displayed.
3. Press the LEFT or RIGHT button to select SET (SET), then press the DOWN button.
   - The submenu including "FORMAT" is displayed.
4. Press the DOWN or UP button to select "FORMAT", then press the RIGHT button.
   - The available options are listed: YES and NO.
5. Highlight your option by pressing the DOWN or UP button, then press the OK button.
6. If "YES" is selected, message "FORMAT:OK" appears on the LCD monitor.
   - If “OK” is selected, message “PLEASE WAIT” appears on the LCD monitor and then "FORMAT DONE" appears when the format is completed.







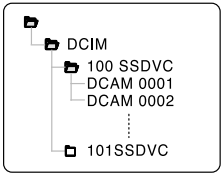
Reference

- If you execute the FORMAT function, all still images/motion clips will be erased completely and erased still images/motion clips cannot be recovered.
- Formatting the memory card using a different device will cause memory card read errors.
- Formatting the memory card deletes all the stored data in the memory card.
- Do not turn the power off in the middle of the formatting.

The Camera : Preparation

Number of Recordable Images / Length of Motion Clip

- The still images that you recorded are saved in JPEG file format.
- Each file has a file name (using sequential numbers) and all files are assigned to a folder.
- A file number beginning with DCAM0001 up to DCAM9999 is sequentially assigned to each recorded image.
- Each folder is numbered from 100SSDVC to 999SSDVC and recorded in the memory card.



Number of Images Stored on Memory Card

Size	Still Image			
	TIFF	SUPER FINE	FINE	NORMAL
2592x1944	Approx. 1	Approx. 6	Approx. 12	Approx. 18
2272x1704	Approx. 1	Approx. 7	Approx. 15	Approx. 23
2048x1536	Approx. 1	Approx. 9	Approx. 19	Approx. 28
1600x1200	Approx. 2	Approx. 15	Approx. 31	Approx. 47
1024x768	Approx. 6	Approx. 36	Approx. 68	Approx. 95
640x480	Approx. 15	Approx. 95	Approx. 158	Approx. 238

(2592X1944: VP-D6050(i) only)

SIZE	Motion Clip	
	30fps	15fps
640 x 480	Approx. 1min	Approx. 2min
320 x 240	Approx. 2min	Approx. 3min

(640X480 : VP-D6050(i) only)

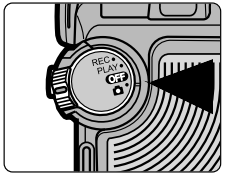
Reference

- The above approximation is based on a 16MB Memory Stick under normal recording conditions.
- The number of pictures that can be stored on a memory card depends on various conditions.

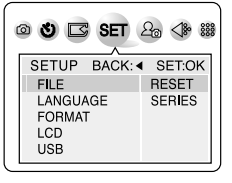
The Camera : Functions

Numbering Stored Pictures

- File numbers will be automatically given, in the order they were recorded, to pictures taken and stored in the Memory Card. By default, pictures are stored on the memory card in a folder labeled 100SSDVC, with four-digit file numbers, starting from DCAM0001.
- You can reset the numbering back to DCAM0001 at any time by setting the FILE to RESET.



1. Turn your camcorder on by setting the Power Switch to (CAMERA) mode.
2. Press the MENU button.
   - The top menu including SET (SET) is displayed.
3. Press the LEFT or RIGHT button to select SET (SET), then press the DOWN button.
   - The submenu including "FILE" is displayed.
4. Press the DOWN or UP button to select "FILE", then press the RIGHT button.
   - The RESET and SERIES options are displayed.
5. Highlight your option by pressing the DOWN or UP button, then press the MENU button.
   - The selected option is applied and automatically exits from the menu screen.



- RESET: File number is reset to 0001 for new Memory Card, after formatting a Memory Card, or after emptying a memory card.
- SERIES: Continues the numbering from the last file number regardless of inserting a new Memory Card, formatting a Memory Card, and emptying Memory Card.

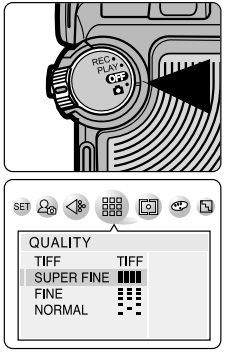
Reference

- The file numbers start from DCAM0001 at the time of purchase.
- MPEG motion clips are stored in the folder DCIM.
- File numbering for a Memory Card that contains image files from another device, will begin after the largest number.
- File numbering restarts from 0001 when 9999 files have been saved.
- A previously formatted Memory card using a personal computer might require reformatting.
- Each folder can contain up to 9999 images. A Memory Card may contain up to 999 folders. "DCF ERROR" message is displayed when it exceeds the limit. If this occurs, delete files or format your memory card after moving your data stored in the memory card to a PC.

The Camera : Functions

Setting the Picture Quality

❖ Set the level of picture quality for the still images before you begin. The number of stored images varies depending on the memory card capacity, picture size and quality.



1. Turn your camera on by setting the Power Switch to (CAMERA) mode.

2. Press the MENU button.
   ■ The top menu including (QUALITY) is displayed.

3. Press the LEFT or RIGHT button to select (QUALITY), then press the DOWN button.
   ■ The available options are listed.
   - **TIFF** TIFF – SUPER FINE – FINE – NORMAL

4. Select an option by pressing the DOWN or UP button to highlight your choice.

5. Press the OK or MENU button to exit the menu screen.
   ■ The selected option's indicator appears on the LCD monitor.

Reference

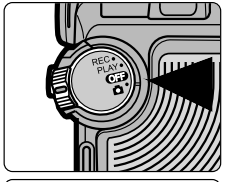
❖ The actual number of pictures you can record varies depending on the picture quality and size settings.
❖ The TIFF format does not compress the image and therefore produce larger image size.
❖ When TIFF is selected, Continuous Shot and AEB modes are not selectable.

The Camera : Functions

Setting the Picture Size

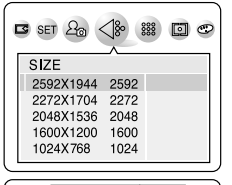
❖ Set the picture size for still images before you begin. The number of stored images varies depending on the memory card capacity, picture size and quality.

1. Turn your camera on by setting the Power Switch to (CAMERA) mode.



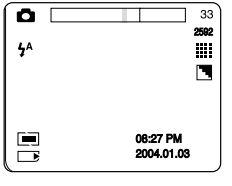
2. Press the MENU button.
   ■ The top menu including (SIZE) is displayed.

3. Press the LEFT or RIGHT button to select (SIZE), then press the DOWN button.
   ■ The available options are listed.
   - 2592x1944, 2272x1704, 2048x1536, 1600x1200, 1024x768, 640x480
     (2592x1944 : VP-D6050(i) only)



4. Select an option by pressing the DOWN or UP button to highlight your choice.

5. Press the MENU button to exit the menu screen.
   ■ The selected option's indicator appears on the LCD monitor.



Reference

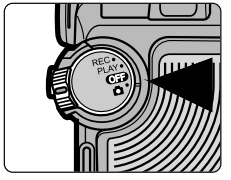
❖ The actual number of pictures you can record varies depending on the picture quality and size settings.
❖ For photo development, the higher the resolution, the finer the picture quality.
❖ 640x480 format is adequate for e-mail transfers.

The Camera : Functions

Setting the Menu Language

- ❖ You can choose a language for the OSD (On-screen Display) menu.
- ❖ Menus and messages can be displayed in English, French, German, Spanish, and Italian.

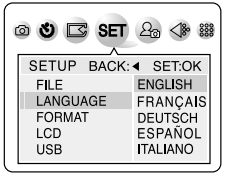
1. Turn your camera on by setting the Power Switch to (CAMERA) mode.



2. Press the MENU button.
   - ■ The top menu including SET (SET) is displayed.

3. Press the LEFT or RIGHT button to select SET (SET), then press the DOWN button.
   - ■ The submenu including “LANGUAGE” is displayed.

4. Press the DOWN button to select “LANGUAGE”, then press the RIGHT button.
   - ■ The available options for LANGUAGE setting are displayed.



5. Select your option by pressing the UP or DOWN button.
   - ■ The selected option is highlighted and applied.

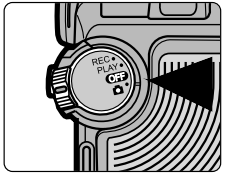
6. Press the OK button to apply your selection.

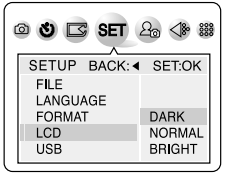
7. Press the MENU button to exit the menu screen.

The Camera : Functions

Setting the LCD Brightness

❖ You can adjust the brightness of the LCD monitor for Camera use.





1. Turn your camera on by setting the Power Switch to (CAMERA) mode.
2. Press the MENU button.
   - The top menu including SET (SET) is displayed.
3. Press the LEFT or RIGHT button to select SET (SET), then press the DOWN button.
   - The submenu including “LCD” is displayed.
4. Press the DOWN button to select “LCD”, then press the RIGHT button.
   - The available options for LCD brightness settings are displayed.
     DARK – NORMAL – BRIGHT
5. Select an option by pressing the UP or DOWN button.
   - The selected option is highlighted.
6. Press the OK button to apply your selection.
   - The selected option is applied.
7. Press the MENU button to exit the menu screen.

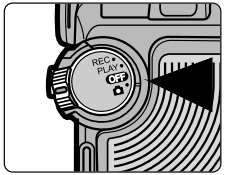
Reference

❖ A brighter LCD Monitor setting consumes more battery power.
❖ You may adjust the brightness in (CAMERA) modes.
❖ For brightness adjustment in Camcorder mode, refer to page 33.
❖ The available menu items are displayed for the selected Camera mode.

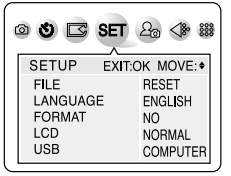
The Camera : Functions

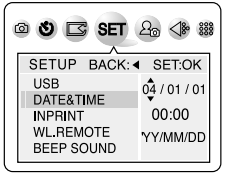
Setting the Clock

❖ A built-in clock for Camera mode creates the Time Stamp. For further information on Time Stamp Imprinting, refer to the next page.



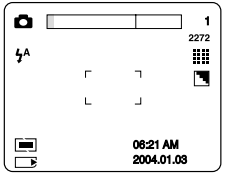
1. Turn your Camera on by setting the Power Switch to (CAMERA) mode.
2. Press the MENU button.
   - The top menu including SET (SET) is displayed.
3. Press the LEFT or RIGHT button to select SET (SET), then press the DOWN button.
   - The submenu including “DATE & TIME” is displayed.
4. Press the DOWN button to select “DATE & TIME”, then press the RIGHT button.
   - The adjustable fields of Stamp Format, Date and Time are displayed while the YEAR field is selected.
5. Press the DOWN or UP button to set the value. Move to next field by pressing the RIGHT button.
6. Repeat Step 5 for the MONTH, DATE and TIME fields.
7. Press the DOWN or UP button to select the Stamp Format.
   - Available formats: ‘YY/MM/DD, MM/DD/’YY, DD/MM/’YY
8. Press the OK button to apply your selection.
   Press the MENU button to exit the menu screen.





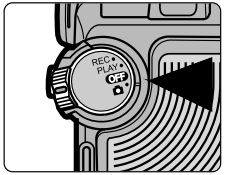
Reference

❖ If you remove the batteries from the camera for an extended period of time, or the batteries become run out, you may need to reset the clock.



The Camera : Functions

Setting the IMPRINT Option

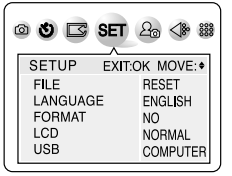


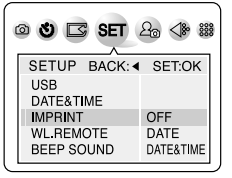
- IMPRINT allows the user to place a date stamp on a picture. Your camera has a built-in clock that maintains the date and time in a 24-hour format. The camera clock needs to be set if you plan to use the date stamp to imprint the date and time on your picture.

Before you begin!

- Set the CLOCK (refer to the previous page).

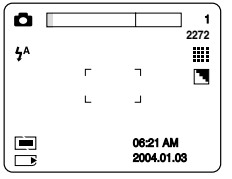
1. Turn your Camera on by setting the Power Switch to (CAMERA) mode.
2. Press the MENU button.
   - The top menu including SET (SET) is displayed.
3. Press the LEFT or RIGHT button to select SET (SET), then press the DOWN button.
   - The submenu including “IMPRINT” is displayed.
4. Press the DOWN button to select “IMPRINT”, then press the RIGHT button.
   - The available options: OFF, DATE and DATE&TIME are displayed.
5. Select an option by pressing the UP or DOWN button, then press the OK button.
   - The selected option is applied.
6. Press the MENU button to exit the menu screen.





Reference

- Every image has its date and time information, regardless of the IMPRINT setting.
- Once the date and time information is stamped on the image then it is not removable.
- The LCD monitor may not display full length of imprint information, you will see full information when you copy to a PC or print the image. It is not malfunctioning.
- If you remove the batteries from the camera for an extended period of time, or the batteries become run out, you may need to reset the clock.
- A separate clock setting for Camera mode is required. For further information on DATE & TIME setup for the Camcorder, refer to page 38.

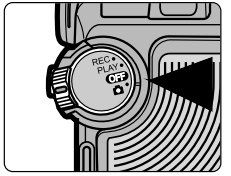


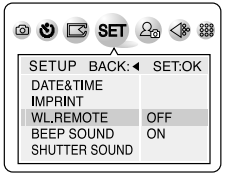
The Camera : Functions

Setting the Wireless Remote Control Acceptance (WL.REMOTE)

- You can enable or disable the Wireless Remote Control for use in Camera mode.
- Using the Wireless Remote Control, you can easily and remotely manipulate your camera. Refer to page 40 for setting the Wireless Remote Control for Camcorder use.
- Using the Wireless Remote Control provided, you can take a delayed picture using the SELF TIMER button (refer to page 105).

1. Turn your camera on by setting the Power Switch to (CAMERA) mode.
2. Press the MENU button.
   - The top menu including (SET) is displayed.
3. Press the LEFT or RIGHT button to select (SET), then press the DOWN button.
   - The submenu including “WL.REMOTE” is displayed.
4. Press the DOWN button to select “WL.REMOTE”, then press RIGHT button.
   - The available options of “OFF” and “ON” are displayed.
5. Select an option by pressing the UP or DOWN button.
6. Press the OK button to apply your selection.
   - The selected option is applied.
7. Press the MENU button to exit the menu screen.





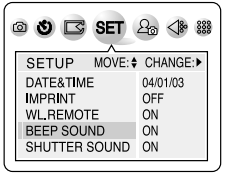
Reference

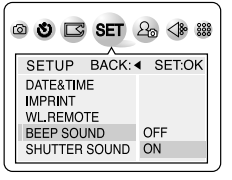
- Available Remote Control buttons in each mode:
  - (MOVIE) for recording: START/STOP, DISPLAY, W / T (before recording), SELF TIMER
  - (PLAY) for movie: PLAY, PAUSE, STOP, FF, REW
  - (PROGRAM), A, S, M, SCENE, MYSET : PHOTO, DISPLAY, W / T, SELF TIMER

The Camera : Functions

Setting the Beep Sound

❖ You can turn the beep that sounds with each press of a button On or Off.

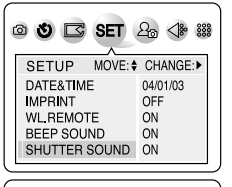


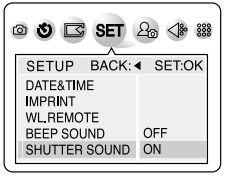


1. Turn your Camera on by setting the Power Switch to (CAMERA) mode.
2. Press the MENU button.
   - The top menu including (SET) is displayed.
3. Press the LEFT or RIGHT button to select (SET), then press the DOWN button.
   - The submenu including “BEEP SOUND” is displayed.
4. Press the DOWN button to select “BEEP SOUND”, then press the RIGHT button.
   - The available options are listed: OFF and ON.
5. Select an option by pressing the UP or DOWN button, then press the OK button.
   - The selected option is applied.
6. Press the MENU button to exit the menu screen.

Setting the Shutter Sound

❖ You can turn the shutter that sounds with each press of the PHOTO button On or Off.





1. Turn your Camera on by setting the Power Switch to (CAMERA) mode.
2. Press the MENU button.
   - The top menu including (SET) is displayed.
3. Press the LEFT or RIGHT button to select (SET), then press the DOWN button.
   - The submenu including “SHUTTER SOUND” is displayed.
4. Press the DOWN button to select “SHUTTER SOUND”, then press the RIGHT button.
   - The available options are listed: OFF and ON.
5. Select an option by pressing the UP or DOWN button, then press the OK button.
   - The selected option is applied.
6. Press the MENU button to exit the menu screen.

The Camera : Functions

Using the Menu

MENU	SUB MENU 1	SUB MENU 2	Functions	Page	Mode
SETUP (SET)	FILE	RESET SERIES	Reset the file numbering	86	 SCENE A S M MySET
	LANGUAGE	ENGLISH FRANÇAIS DEUTSCH ESPAÑOL ITALIANO	Set the OSD language	89	
	FORMAT	NO YES	Format the memory card	84	
	LCD	DARK NORMAL BRIGHT	Adjust the LCD brightness	90	
	USB	COMPUTER PRINTER	USB data destination (PC/PRINTER)	137	
	DATE&TIME		Set the Date and Time	91	
	IMPRINT	OFF DATE DATE & TIME	Set the imprint option (Date/Time)	92	
	WL.REMOTE	OFF ON	Set the Wireless Remote acceptance	93	
	BEEP SOUND	OFF ON	Set the beep sound for key press	94	
	SHUTTER SOUND	OFF ON	Set the shutter sound	94	
	Q.VIEW	1 SEC	Adjust the Quick Review duration	102	
MYCAM	OFF START IMAGE1 START IMAGE2 START IMAGE3		Default starting image Set a custom starting image	133	, SCENE, A S, M, MySET ,

The Camera : Functions

MENU	SUB MENU 1	SUB MENU 2	Functions	Page	Mode
SIZE	2592 X 1944 2272 X 1704 2048 X 1536 1600 X 1200 1024 X 768 640 X 480 320 X 240		Change the picture size (2592X1944: VP-D6050(i) only) 640X480 is supported for MPEG(VP-D6050(i) only) and JPEG modes. 320X240 is supported for MPEG mode only	88	, SCENE, A S, M,
QUALITY	TIFF SUPER FINE FINE NORMAL		Set to TIFF non-compressing format Set to super fine picture quality Set to fine picture quality Set to normal picture quality	87	, SCENE A, S, M
METERING	MULTI SPOT		Set the metering to MULTI Set the metering to SPOT	116	, A, S, M
EFFECT	NORMAL B & W SEPIA NEGATIVE		No special effect Converts colours into Black and White Converts colour info. to brown tone Reverses colours	124	, A, S, M,
SHARPNESS	SOFT NORMAL VIVID		Changes sharpness setting	127	, A, S, M,
SHOOTING	SINGLE CONTINUOUS AEB		Normal single picture shooting 3 continuous picture shootings 3 continuous pictures with exposure bracketing	125	A, S, M (except AEB)
SELF TIMER	OFF 2s SELF 10s SELF		No delay Set to 2 seconds Set to 10 seconds	105	, A,S,M,SCENE,

The Camera : Functions

MENU	SUB MENU 1	SUB MENU 2	Functions	Page	Mode
SAVE	MYSET1 MYSET2 MYSET3		Stores current setting for quick recall	131	, A, S, M
SCENE	NIGHT PORTRAIT CHILDREN LANDSCAPE CLOSE-UP SUNSET DAWN BACKLIGHT FIREWORKS BEACH&SNOW		Provides a quick access to preset SCENE modes	117	SCENE
FRAME RATE	30fps 15fps		Sets the frame rate of MPEG motion clips	106	
DPOF	STANDARD	SELECT ALL PICs	Standard DPOF printing function	142	
	INDEX	NO YES	Prints an Index page of all the images stored in the Memory Card.	143	
	PRINT SIZE	SELECT ALL PICs	Selects the size of images to print	143	
	CANCEL	STANDARD INDEX PRINT SIZE	Cancels the current settings for selected menu item	142	
ROTATE	RIGHT(90°) LEFT(90°) UPDOWN(180°)		Rotates the selected image	129	

The Camera : Functions

MENU	SUB MENU 1	SUB MENU 2	Functions	Page	Mode
RESIZE	2272 X 1704 2048 X 1536 1600 X 1200 1024 X 768 640 X 480 START IMAGE		Downsizes the selected image (2272X1704: VP-D6050(i) only) Resize an image to “START IMAGE” to change your starting image.	130	▶
SLIDE	INTERVAL		Sets the interval between slides	101	▶
	REPEAT	OFF ON	Turns ON or OFF the REPEAT option		
	START		Starts the Slide Show		
PROTECT	ONE PIC SELECT ALL PICs		Protects images from accidental erasure	135	▶
DELETE	SELECT ALL	NO YES NO YES	Deletes Selected images	104	▶

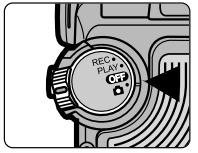
Reference

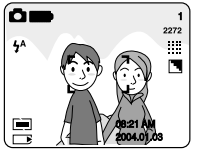
- Pressing the DISPLAY button while the menu is displayed on the LCD monitor helps to read the menu screen by changing the background into black.

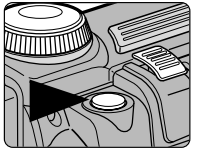
The Camera : Basic Picture Taking

Taking and Viewing Your First Photo

Taking Still Images: (PROGRAM) Mode







1. Insert the memory card (refer to page 83) and connect a power source (refer to page 27).
2. Turn your camera on by setting the Power Switch to (CAMERA) mode and turn the Mode Dial to select (PROGRAM) mode.
3. Frame your subject.
   - Frame your subject using the LCD monitor or the viewfinder.
   - Use the Zoom Lever to zoom in or zoom out.
4. Set the focus by pressing the PHOTO button halfway down.
   - Locate your main subject inside the focus area indicated by [ ], then press the PHOTO button halfway down to focus on your main subject.
   - You can move your camera to the desired framing after the focus is locked.
   - Depending on lighting conditions, the built-in flash may pop up.
5. Fully press the PHOTO button to take the picture.
   - The picture is taken and saved into the memory card within few seconds.
   - Taking another picture within this interval is not possible.
   - The Memory Card indicator will blink during the time it takes to save the image.

Taking Still Images: EASYQ Mode

- EASYQ mode is the most convenient, fully automatic camera mode. With one press of the EASYQ button, the camera is automatically set to create the best results under various conditions.
- You can switch to EASYQ mode from any camera modes excepting (MOVIE) and (PLAY) modes. Press the EASYQ button again to return to the previous mode.

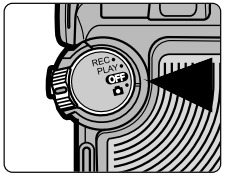
Reference

- The Auto Power Off feature is designed to save the battery power. If there is no operation for more than 5 minutes, the camera will automatically turn off. To resume camera operation, press the START/STOP button once.

The Camera : Basic Picture Taking

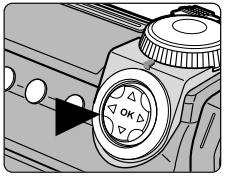
Viewing Still Images

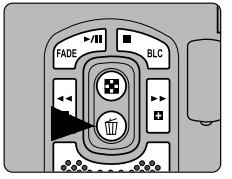
- You can playback and view still images stored on the Memory Card.
- Still images stored on the memory card are all displayed in the same size despite their original resolution using the LCD monitor or viewfinder.
- There are three ways to view the recorded images in Camera ▶ (PLAY) mode:
  - Single: To view an image frame by frame
  - Slide Show: To view all images automatically in consecutive order
  - Multiple Display: Up to 9 thumbnails are displayed on the LCD monitor at one time.

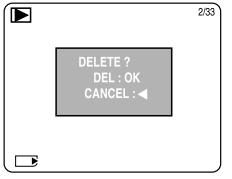


Viewing a Single Still Image

1. Turn on your camera by setting the Power Switch to (CAMERA) mode.
2. Set the Mode Dial to ▶ (PLAY) mode.
   - The last picture taken appears on the LCD monitor.
3. Using the RIGHT and LEFT buttons, search for the desired still image.
   - To view the next image, press the RIGHT button.
   - To view the previous image, press the LEFT button.
   - To view the detailed information on a picture, press the DISPLAY button.
   - Pressing the RIGHT button when you are on the last image will take you to the first image and pressing the LEFT button when you are on the first image will take you to the last image.
   - Keep pressing RIGHT or LEFT to search quickly for an image.
   - To delete the image displayed, press the (DELETE) button.





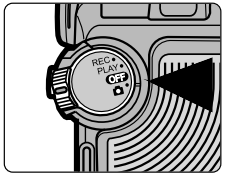


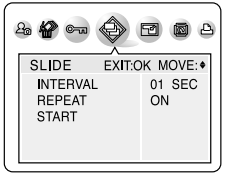
Reference

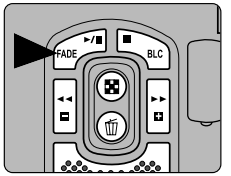
- If there is no stored image in the memory card, when you switch to ▶ (PLAY) mode, a message “NO IMAGE!” is displayed and the MENU button will not function.
- When you connect the Multi-AV cable under the ▶ (PLAY) mode, the LCD monitor turns off automatically and the TV displays the image.

The Camera : Basic Picture Taking

Viewing a Slide Show







1. Turn your camera on by setting the Power Switch to (CAMERA) mode.
2. Turn the Mode Dial to set to (PLAY) mode.
   - A stored picture is displayed on the LCD monitor.
3. Press the MENU button.
   - The top menu including (SLIDE) is displayed.
4. Press the LEFT or RIGHT button to select (SLIDE), then press the DOWN button.
5. Press the DOWN or UP button to select “INTERVAL”, then press the RIGHT button.
   - The cursor is located on Interval.
6. Select an interval by pressing the UP or DOWN button.
   The available range is 01 ~ 10 seconds.
7. Press the LEFT button and then press the DOWN button to select REPEAT.
8. Press the RIGHT button and select OFF or ON.
   - The REPEAT option is turned OFF or ON.
9. Press the LEFT button, then press the DOWN button.
   - START is selected.
10. Press the OK button to start the Slide Show. To pause the Slide Show, press the ▶/II (PLAY/STILL) button. To resume the Slide Show, press the ▶/II (PLAY/STILL) button again.
11. To stop the Slide Show, press the OK or MENU button.

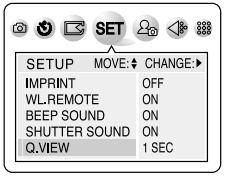
Reference

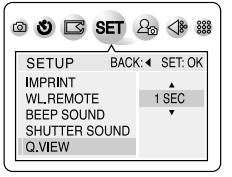
- Loading time may vary depending on the image size.
- The Slide Show will start from the current picture.
- For motion clips, only the first frame is displayed.
- TIFF images are not displayed by the Slide Show.

The Camera : Basic Picture Taking

Setting the Q.View Duration

- After taking a picture, your camera automatically shows just taken still image shortly and then returns to recording mode after few seconds. You can set the Q.View duration using this menu.
- The Q.View function works only for still images.

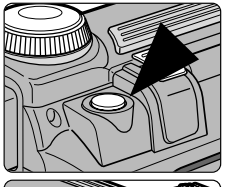


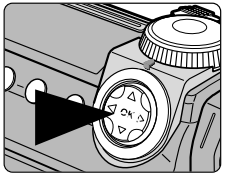


1. Turn your camera on by setting the Power Switch to (CAMERA) mode.
2. Press the MENU button.
   - The top menu including SET is displayed.
3. Press the LEFT or RIGHT button to select SET, then press the DOWN button.
   - The submenu including “Q.VIEW” is displayed.
4. Press the DOWN button to select “Q.VIEW”, then press the RIGHT button.
5. Select an option by pressing the UP or DOWN button
   - You can set to 1, 2, 3, 4, 5 seconds or set to OFF.
6. Press the OK or MENU button to apply your selection and exit the menu screen.

Viewing a Still Image using the Quick Review

- Quick Review is used to view the lastly recorded still image.

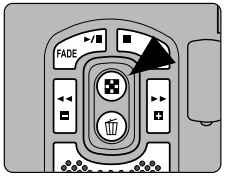


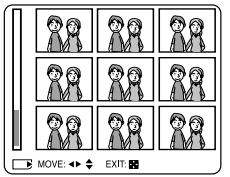


1. Turn your camera on by setting the Power Switch to (CAMERA) mode and turn the Mode Dial to select (PROGRAM) mode.
2. Record a still image using the PHOTO button.
3. Press the LEFT button to view the picture just taken.
   - To see detailed information on the picture, press the DISPLAY button once.
4. To return to Camera mode, press the LEFT button again or press the PHOTO button halfway down.

The Camera : Basic Picture Taking

Viewing Multiple Images in Multiple Image View

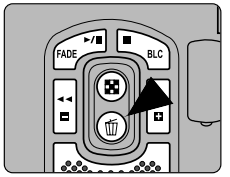


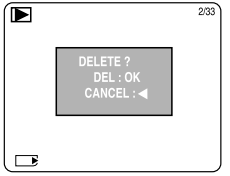


1. Load a memory card that has previously stored pictures (refer to page 83).
2. Turn your camera on by setting the Power Switch to (CAMERA) mode.
3. Turn the Mode Dial to set the (PLAY) mode.
   - A stored picture is displayed on the LCD monitor.
4. Press the button to display up to 9 pictures on the LCD monitor.
   - Multiple pictures are displayed and the cursor is on the picture you were viewing.
5. Press the LEFT, RIGHT, DOWN or UP button to move the cursor.
   - The selected picture will be bordered by a thin line.
6. Press the OK button to view the selected picture in full screen.

Deleting Recorded Pictures

Deleting One Image in Single Image View



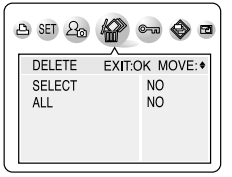


1. Load a memory card that has previously stored pictures (refer to page 83).
2. Turn your camera on by setting the Power Switch to (CAMERA) mode.
3. Turn the Mode Dial to set the (PLAY) mode.
   - A stored picture is displayed on the LCD monitor.
4. Press the button to display up to 9 pictures on the LCD monitor.
   - Select a stored picture to delete using the LEFT or RIGHT button, then press the OK button.
5. Press the (DELETE) button to delete the selected picture.
   - The message “DELETE?” and the available options are displayed.
6. Press the OK button to delete the picture, or press the LEFT button to cancel.
   - If deleted, the previous or the last picture stored is displayed.
     If canceled, it returns to the previous screen.

The Camera : Basic Picture Taking

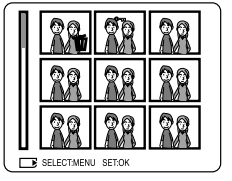
Deleting Recorded Pictures Using DELETE Menu

1. Turn your camera on by setting the Power Switch to (CAMERA) mode.
2. Turn the Mode Dial to set to (PLAY) mode.
   - A stored picture is displayed on the LCD monitor.
3. Press the MENU button.
   - The top menu including (DELETE) is displayed.
4. Press the LEFT or RIGHT button to select (DELETE), then press the DOWN button.
   - The available options are listed: SELECT and ALL.



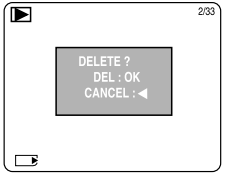
✤ Selecting Images To Delete

1. Press the DOWN or UP button to select “SELECT”, then press the RIGHT button.
   - Select “YES” to display multiple pictures screen.
2. Press the DOWN or UP button to select an image to delete, then press the MENU button.
   - To cancel the selection, press the MENU button again on a selected image.
3. When you are done with selection, press the OK button.
   - A message “PLEASE WAIT” appears and deletes selected images. The previous picture or motion clip is displayed.



✤ Deleting All Images At Once

1. Press the DOWN or UP button to select “ALL”, then press the RIGHT button.
   - Select “YES” if you are sure to delete.
2. If “YES” is selected, message “DELETE ?” appears on the LCD monitor.
   - Press the OK button to delete. Press the LEFT button to cancel.



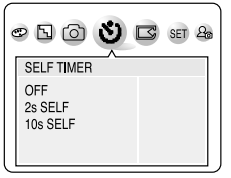
Notes

- ✤ When there is no stored picture on the memory card, the message “NO IMAGE!” will be displayed.
- ✤ If an erroneous memory card format is found on the memory card, the message “CARD ERROR!” will be displayed.
- ✤ If an erroneous image file is found on the memory card, the message “FILE ERROR” will be displayed. It may be caused by copying images from different digital devices.
- ✤ Formatting the memory card will delete all the stored images.
- ✤ To protect important picture from accidental deletion, activate the image protection (refer to page 135).

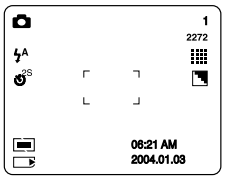
The Camera : Basic Picture Taking

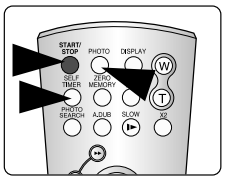
Delayed Recording – Self Timer

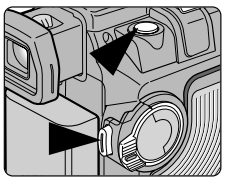
- Using the remote control, delaying the shutter release (in order to take self-photography and various other camera uses) is available.



1. Turn your camera on by setting the Power Switch to (CAMERA) mode.
2. Turn the Mode Dial to set (PROGRAM), A, S, M, SCENE or (MOVIE) mode.
3. Press the MENU button.
   - The top menu including (SELF TIMER) is displayed.
4. Press the LEFT or RIGHT button to select (SELF TIMER), then press the DOWN button.
   - The available options of OFF, 2s SELF and 10s SELF are listed.
5. Select an option by pressing the DOWN or UP button, then press the OK or MENU button.
   - The selected option is applied and the corresponding indicator appears on the LCD monitor.
   - You can also set the SELF TIMER by pressing the SELF TIMER button on the Remote Control until the desired option is displayed on the LCD monitor.
     - : Delays the shutter release by 2 seconds.
     - : Delays the shutter release by 10 seconds.
6. Frame your subject.
7. Press the PHOTO button on the Remote Control or on the Camera to start the timer. For motion clips, press the START/STOP button on the Remote Control or on the Camera.
   - A beep sound will play and after the time indicated, recording starts.







Reference

- Do not obstruct the remote control sensor by putting obstacles between the remote control and camera.
- The remote control range is 4 ~ 5m (13 ~ 17 ft).
- The effective remote control angle is up to 30 degrees left / right from the center line.
- Using a tripod is recommended for delayed recording.

The Camera : Basic Picture Taking

Taking Motion Clips (MPEG) Using the Camera

❖ You can record movies using the (MOVIE) mode.

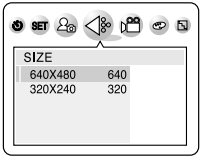
Preparation – Setting the Resolution and Frame Rate

1. Turn your camera on by setting the Power Switch to (CAMERA) mode.
2. Turn the Mode Dial to set (MOVIE).
   ■ The indicator appears on the LCD monitor.
3. Press the MENU button.

■ **Setting up the MPEG Resolution (VP-D6050(i) only)**

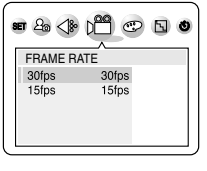
❖ VP-D6040(i) only supports 320X240 MPEG resolution.

1. Press the LEFT or RIGHT button to select (SIZE), then press the DOWN button.
   ■ The available options are listed: 640x480, 320x240
2. Select an option by pressing the DOWN or UP button, then press the OK button.
   ■ The selected option is applied.



■ **Setting up the MPEG Frame Rate**

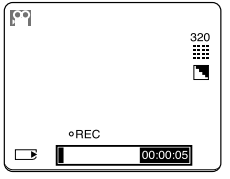
1. Press the LEFT or RIGHT button to select (FRAME RATE), then press the DOWN button.
   ■ The available options are listed: 30fps, 15fps
2. Select an option by pressing the DOWN or UP button, then press the OK button.
   ■ The selected option is applied.



The Camera : Basic Picture Taking

Recording a Motion Clip onto a Memory Card

- You can record movies using the (MOVIE) mode.
- Before recording a motion clip, insert a Memory Card (refer to page 83).



1. Turn your camera on by setting the Power Switch to (CAMERA) mode.
2. Turn the Mode Dial to (Movie).
   - Movie mode indicator is displayed and it is ready for recording. Recordable time using the memory card is displayed.
3. Frame your subject, then press the START/STOP button to start recording.
   - The Time Counter starts counting and begins the recording.
   - The Memory Card indicator will blink during recording.
   - Zooming is not available during a motion clip recording. Zoom in or out before recording.
4. To pause the recording for a while, press the START/STOP button. To resume recording, press the START/STOP button again.

- You can use the Remote Control for Motion Clip recording.

1. Follow Steps 1 ~ 2 above for the normal recording of Motion Clips.
2. Frame your subject, then press the START/STOP button on the Remote Control.
   - The Time Counter starts counting and the recording begins.
3. To stop recording, press the START/STOP button.

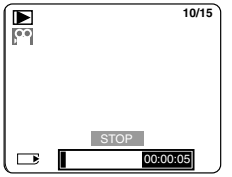
Reference

- To use an external microphone, connect a microphone to the MIC jack on the right front side of your camera.
- It is recommended to use a tripod for Motion Clip recordings with the Remote Control. It is also handy for self recordings.
- When recording MPEG4 motion clips, LCD monitor may display black bars on its bottom, it is normal. Playing back recorded MPEG4 motion clip on the unit and PC shows full screen.
- The recorded MPEG motion clip is saved in MOV format. To playback an MPEG having its extension of ".MOV", you will need a Q.Time player that can be installed from the DVC Media 5.1 Software CD provided or from the internet sites. Refer to page 153 and 154 for further details on software installation.

The Camera : Basic Picture Taking

Viewing a Motion Clip (MPEG)

To Playback a Recorded Motion Clip



1. Turn your camera on by setting the Power Switch to (CAMERA) mode.
2. Turn the Mode Dial to (PLAY) mode.
   - A stored picture or movie is displayed.
3. Press the LEFT or RIGHT button to locate the motion clip to be played back.
   - The MPEG indicator is displayed when a motion clip is selected.
4. Press the PLAY button to start playback.
   - Playback begins.
5. To pause playback, press the ►/II (PLAY/STILL) button. To resume playback, press the ►/II (PLAY/STILL) button again. To stop playback, press the ■ (STOP) button.
6. During the playback, use the ▶▶ (FF) button or ◀◀ (REW) button to move faster to the desired position in the motion clip.

Reference

- ✤ When you playback a motion clip (MPEG) on the LCD monitor or on a TV connected, the sound is not played back. Recorded sound is played back on a PC after copying or moving the motion clip to a PC.
- ✤ In (PLAY) mode, the LCD monitor may flash when you switch from STOP to PLAY.
- ✤ To playback recorded motion clips on a PC, install the Quick Time Player from the provided DVC Media 5.1 Software CD.

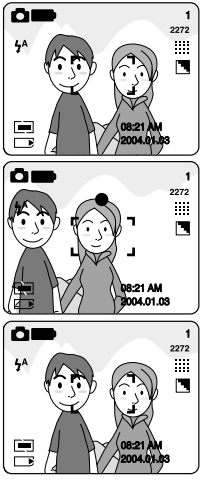
To Delete a Recorded Motion Clip

1. Turn your camera on by setting the Power Switch to (CAMERA) mode.
2. Turn the Mode Dial to set the (PLAY) mode.
   - A stored picture or movie is displayed.
3. Press the LEFT or RIGHT button to locate the motion clip to be deleted.
4. Press the (DELETE) button to delete selected pictures.
   - The message “DELETE?” and the available options are displayed.
5. To delete the motion clip, press the OK button or press the LEFT button to cancel.
   - If deleted, the previous picture or motion clip stored is displayed. If Delete is cancelled, it returns to the previous screen.

The Camera : Advanced Techniques

Setting the Focus

- In Camera modes, the automatic focus will not engage unless the PHOTO button is pressed halfway down.
- To get good image quality, please verify the focus is set properly before fully depressing the PHOTO button.
- While the camera is focusing (when pressing the PHOTO button halfway down), a flashing icon (●) will appear on the LCD monitor. Once the focus is set properly, green indicator (●) will appear.
- A sound effect will play once the focus is set.



1. Frame your subject inside the AF focus area on the LCD monitor in order to obtain clear focus.
2. Press the PHOTO button halfway down to adjust the focus.
   - When the focus is set, a sound effect will play.
   - You can maintain focus by continuing to press the PHOTO button halfway down in order to change your framing. This is useful when your main subject is not located in the center area of your frame.
3. Press the PHOTO button firmly to take the picture.

Reference

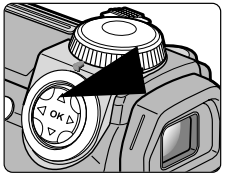
- If the focus is not properly set, release the PHOTO button and then press the PHOTO button halfway down again.
- The flashing red icon (●) will appear over the Focus Area Indicator when the focus cannot be set. If this occurs, release the PHOTO button and try again.
- Use MACRO mode for recording images at closer range, or proper focusing will not occur (refer to page 114).

Vibration Warning

- Vibration Warning ( ) indicator will appear when you set the flash mode to Slow Sync ( ) or Flash Cancel ( ) under a dark lighting condition, and press the PHOTO button halfway down.
- Use a tripod or allow the built-in flash to fire for clear image when the Vibration Warning ( ) indicator appears.
- To change your flash mode, refer to the next page.

The Camera : Advanced Techniques

Using the Built-In Flash



- The Flash works in (CAMERA) modes and allows the user to take brighter pictures in dark locations (i.e. nighttime shooting, indoors and in shaded areas).
- Auto Flash, Red-Eye Reduction, Fill-In Flash, Slow Sync and Flash Cancel modes are available.
- To select a flash mode, press the UP button. It will toggle the flash mode between:

■ Auto Flash ϟA
The flash automatically pops up and fires according to the lighting conditions. Pressing the PHOTO button halfway down will detect the lighting condition. Even if it remains raised, the flash will not fire when there is sufficient light.

■ Red-Eye Reduction ◎
The Red-Eye Reduction flash fires before the main flash fires and reduces the Red-Eye effect. Red-Eye Reduction flash mode is effective when the subjects are within range of the flash and looking toward the flash. A slight delay occurs after the PHOTO button is fully pressed, to allow the Red-Eye reduction to take effect. This flash mode is not recommended for fast-moving subjects or long-distance subjects.

■ Fill-In Flash ϟ
Forces the flash to fire despite the lighting condition. To get finer results, it is recommended to use Fill-In flash mode in backlight conditions and for shaded subjects under sufficient lighting conditions.

■ Slow Sync ϟS
The shutter speed is set to slow and the flash fires at the adjusted shutter speed. Use to capture both subject and background at night or in dim light. Use of a tripod is recommended to prevent a blurred picture. Slow Sync flash mode allows the user to take brighter background as well as brighter subject at night.

■ Flash Cancel ⊘
Forces the flash not to fire. Public places such as museums may prohibit flashlight use.

Reference

- The flash does not function in CONTINUOUS SHOT, AEB or in the Camcorder modes.
- The battery power will be consumed faster with repeated use of the flash.
- To use the flash again, wait until the flash is fully charged (5 ~ 7 seconds).
- To close the flash after use, push the top lid of the flash downwards until it clicks.
- Do not apply excessive force when closing the flash; otherwise it might damage the moving parts.
- The effective flash range is 7 ~ 10 feet.

The Camera : Advanced Techniques

Available Flash Modes by Camera Mode

	PROGRAM	A Aperture Priority	S S. Speed Priority	M Manual	EASYQ	Preset **SCENE** Mode									
ϟA	O	X	X	X	X	X	X	X	X	X	X	X	X	X	O
◎	O	X	X	X	O	X	O	O	X	X	X	X	X	X	X
ϟ	O	O	O	O	X	X	X	X	X	X	X	X	O	X	X
ϟS	O	X	X	X	X	O	X	X	X	X	X	X	X	X	X
ⓢ	O	O	O	O	O	O	X	X	O	O	O	O	X	O	X

O = Available

X = Not Available

The Camera : Advanced Techniques

Setting the Focus Modes

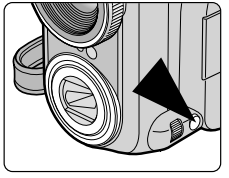
- Choose a focus mode to suit your subject and composition. Auto focusing, Continuous Auto focusing, Manual focusing, and Macro focusing modes are available.
- Focus will be automatically set near the center of the frame.

Reference

- Focus is set when you push the PHOTO button halfway down. Focus is set on the subject located nearest the center of the frame. To provide sharper, clearer images, SPOT metering and MULTI metering modes are available. Refer to page 116 for further details on Metering Modes.

Auto Focus Mode

- Use this focus mode in most picture taking conditions to obtain the best results. Turning on your camera by setting the Power Switch to (CAMERA) mode automatically sets the focus mode to Auto Focus.

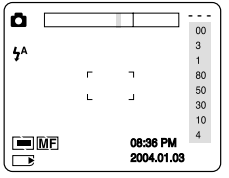


Manual Focus Mode

- Allows the user to adjust the focus manually.
- When Manual Focus mode is set, [MF] is displayed on the LCD monitor.

1. Turn your camera on by setting the Power Switch to (CAMERA) mode.
2. Turn the Mode Dial to set (PROGRAM), A, S, M, (MOVIE) or SCENE (NIGHT) mode.
   - For SCENE mode, it only works in NIGHT mode.
3. Press the MF/AF button until [MF] is displayed to set the focus mode to Manual Focus.
   - [MF] indicator is displayed with a focus bar.
4. To adjust the focus, turn the Navigation wheel.
   - Selected focus distance is displayed.
5. Press the PHOTO button to take the photo.
6. To return to Auto Focus Mode, press the MF/AF button until the [MF] indicator disappears.

- Manual Focus is not available when the distance is less than 30cm (0.9 ft) in TELE mode.

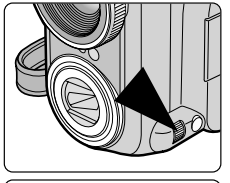


The Camera : Advanced Techniques

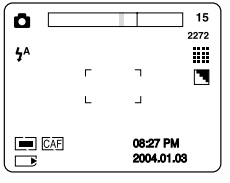
Continuous Auto Focus Mode

- Allows the user to focus rapidly, whereas the single auto focus gives a less rapid response but saves battery power.
- When Continuous Auto Focus mode is selected, [CAF] is displayed on the LCD monitor.

1. Turn your camera on by setting the Power Switch to (CAMERA) mode.



2. Turn the Mode Dial to set (PROGRAM), A, S, M or SCENE mode.
   - For SCENE mode, it only works in CHILDREN and CLOSE-UP modes.
3. Press the MF/AF button until [CAF] is displayed to set the focus mode to Continuous Auto Focus.
   - The [CAF] indicator is displayed.
4. Press the PHOTO button to take photo.
5. To return to Auto Focus Mode, press the MF/AF button until the [CAF] indicator disappears.



Reference

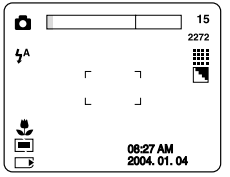
- EASYQ mode selects the AUTO FOCUS automatically.
- Be sure to confirm that the focus is set using the LCD monitor or the viewfinder when Manual Focusing is used.
- Continuous Auto Focus will consume more battery power.

The Camera : Advanced Techniques

Macro Mode

- The Macro Focusing mode allows the user to take a close-up picture of a detailed subject.
- Your camera can focus on subjects as close as 4cm (about 1.57 inches).
- The Macro mode works only in (CAMERA) modes.

1. Turn your camera on by setting the Power Switch to (CAMERA) mode.



2. Press the RIGHT button.
   - The Macro mode indicator appears on the LCD monitor.
3. Frame your subject and close-up by zooming in or out if required.
4. Press the PHOTO button to take the close-up picture.
5. To exit Macro mode, press the RIGHT button again.
   - The Macro mode indicator disappears from the LCD monitor.

- Modes and Focusing Distances Supported

Modes	Normal	Macro (W: Wide, T: TELE)	
Distance	80cm ~ Infinity 31.5 inch ~ Infinity	W: 4 ~ 80cm W: 1.6 ~ 31.5 inch	T: 30 ~ 80cm T: 11.8 ~ 31.5 inch

Reference

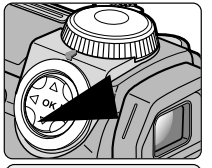
- Be careful not to cast a shadow over your subject when recording in Macro Mode.
- When you cannot get proper focus on the subject, zoom in or out to obtain clear focus.
- The LCD monitor displays your framing more precisely.

The Camera : Advanced Techniques

Setting the Exposure

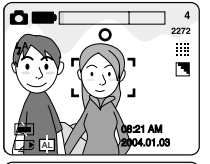
- Exposure, shutter speed and ISO sensitivity affects picture brightness and overall picture quality. Longer exposure, slower shutter speed and higher ISO sensitivity brighten the picture. Adjustment of these settings is available when you are using (PROGRAM), A, S, and M camera modes. You can adjust the overall image brightness by adjusting the Exposure, Shutter Speed and ISO settings.
- Overall brightness of a captured image may appear too dark if large parts of the framed scene are very bright or the background is much brighter than the main subject. Overall brightness of captured image may appear too bright if large parts of the framed scene are dim or the background is much darker than the main subject. Exposure compensation can be achieved by adjusting the Exposure, Shutter Speed, or ISO settings.
- Turn on your camera by setting the Power Switch to (CAMERA) mode.

Exposure Compensation	(PROGRAM), A, S, and M modes
Shutter Speed Adjustment	S and M modes
Aperture Adjustment	A and M modes
ISO Sensitivity Setting	(PROGRAM), A, S, and M modes

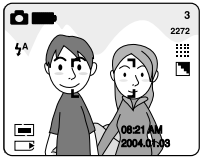


Locking the Auto Exposure: AE LOCK

❖ You can lock the exposure setting for situations where you want to darken a high contrast subject and background. AE LOCK works only in (PROGRAM) and SCENE modes.



1. Frame your subject using the LCD monitor, then press the AE LOCK (DOWN) button.
2. Re-frame your subject if so desired.
3. Press the PHOTO button halfway down to enable the AE LOCK obtaining clear focus on the subject.
   - You may set the focus on a different subject.
4. Press the PHOTO button firmly to take a picture.



Reference

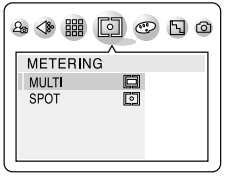
❖ After taking a photo, the AE LOCK is automatically released.

The Camera : Advanced Techniques

Setting the Auto Exposure Metering Options: SPOT AE or MULTI AE

- MULTI and SPOT AE modes work only in (CAMERA) mode.
- Use this function to adjust the exposure of the subject to obtain better results.
- MULTI AE meters the lighting condition of the overall image by metering the exposure on multiple points.
- SPOT AE meters the lighting condition of a narrower area in order to have precise exposure control over a specific subject.
- The METERING menu allows you to select between SPOT AE and MULTI AE for automatic exposure metering control.

1. Turn on your camera by setting the Power Switch to (CAMERA) mode.



2. Turn the Mode Dial to set to (PROGRAM), A, S, or M mode.

3. Press the MENU button.
   - The top menu including (METERING) is displayed.

4. Press the LEFT or RIGHT button to select (METERING), then press the DOWN button.
   - MULTI and SPOT options available are listed.

5. Select an option by pressing the DOWN or UP button.

6. Press the OK or MENU button to exit the menu screen.
   - The selected option is applied and corresponding indicator appears on the LCD monitor.

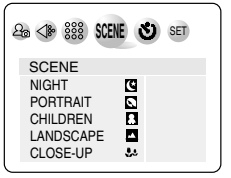
The Camera : Advanced Techniques

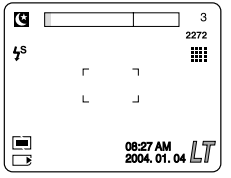
SCENE Modes – Preset Auto Exposure Modes

- Preset SCENE modes are provided to assist the user in taking pictures under various lighting conditions.
- The SCENE modes direct the camera to automatically adjust the aperture, shutter speed and white balance according to the lighting conditions and preset settings.

The available SCENE modes are:

NIGHT		PORTRAIT	
CHILDREN		LANDSCAPE	
CLOSE – UP		SUNSET	
DAWN		BACKLIGHT	
FIREWORKS		BEACH&SNOW	





1. Turn your camera on by setting the Power Switch to (CAMERA) mode.
2. Turn the Mode Dial to set to SCENE mode.
   - The SCENE mode indicator appears on the LCD monitor.
3. Press the MENU button.
   - The top menu including SCENE (SCENE) is displayed.
4. Press the LEFT or RIGHT button to select SCENE (SCENE), then press the DOWN button.
   - The available options are displayed.
5. Select an option by pressing the DOWN or UP button, then press the OK or MENU button.
   - The selected option is applied and corresponding indicator appears on the LCD monitor.

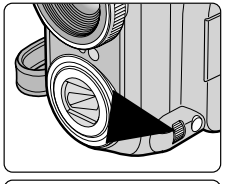
Reference

- In the (NIGHT) SCENE mode, pressing the Navigation Wheel shows LT (Long Time) settings menu. You can adjust Shutter Speed and Aperture Value for still images using LEFT or RIGHT button.
  - Shutter Speed Range: AUTO, 1/2,000 ~ 15S
  - Aperture Range: AUTO, F2.8 ~ F11 (depending on zoom position)

The Camera : Advanced Techniques

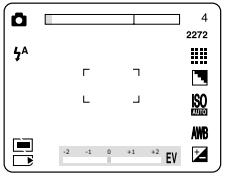
Manual Exposure Compensation

- If the image in the LCD monitor is too bright, choose a negative value for exposure compensation.
- If the image in the LCD monitor is too dark, choose a positive value for exposure compensation.
- The Manual Exposure compensation function works in (PROGRAM), A or S modes.



1. Press the Navigation Wheel once.

2. Press the DOWN or UP button to select indicator.
   - The Exposure Control Bar appears on the LCD monitor.



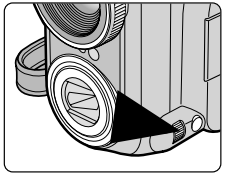
3. Press the LEFT or RIGHT button to adjust the Exposure Compensation.
   - Positive compensation brightens the picture, while negative compensation darkens the picture.

4. When you are satisfied, press the Navigation Wheel again.
   - The indicator remains on LCD while the Exposure Control Bar disappears.

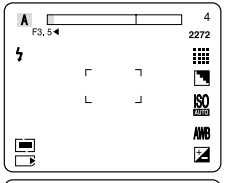
The Camera : Advanced Techniques

Setting the Aperture

- By controlling the aperture, the user may adjust the overall picture brightness.
- Large apertures require more lighting and soften the background details.
- Smaller apertures will increase the depth of field, bringing the main subject and the background into focus.
- Set the Mode Dial to A or M.

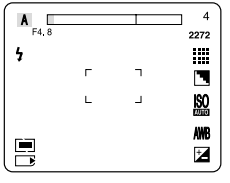


1. Press the Navigation Wheel (Quick Menu) once.



2. Press the DOWN or UP button to select Aperture Setting (f-number).
   - The current Aperture Setting (f-number) is highlighted in Green.

3. Press the LEFT or RIGHT button to set the desired aperture value.
   The available Aperture Range: f2.8 ~ f11.0



4. When you are satisfied, press the Navigation Wheel again.
   - The selected aperture setting is displayed on the LCD monitor and exits the setup screen.

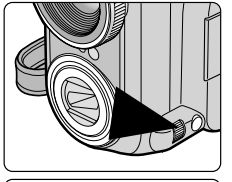
Reference

- A (Aperture) and M (Manual) modes allow the user to make aperture adjustments.
- Maximum and minimum values of the aperture range depend on the lens position.
- The possible setting range for the aperture varies with zooming.

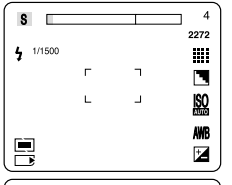
The Camera : Advanced Techniques

Setting the Shutter Speed

- By controlling the shutter speed and aperture, you may adjust the overall brightness of the picture.
- Slower shutter speeds require more lighting. Faster shutter speeds require less lighting.
- For fast moving subjects, a slow shutter setting will produce a motion blurring effect.
- Set the Mode Dial to S or M.

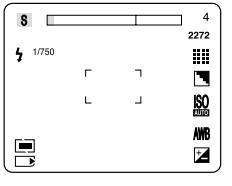


1. Press the Navigation Wheel (Quick Menu) once.



2. Press the UP or DOWN button to select Shutter Speed Setting.
   - The current Shutter Speed value is highlighted in Green.

3. Press the LEFT or RIGHT button to set the desired shutter speed.
   Available Shutter Speed Range: 1/2000 ~ 15.0 seconds



4. When you are satisfied, press the Navigation Wheel again to exit the setup screen.

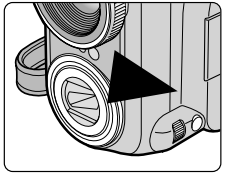
Reference

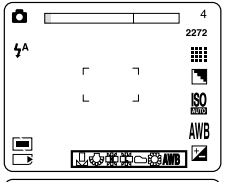
- Using a tripod for slow shutter settings is recommended.

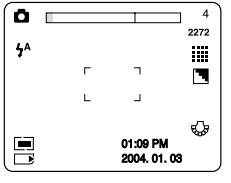
The Camera : Advanced Techniques

Setting the White Balance

Setting the Preset White Balance







- Digital Cameras capture an image using a CCD (Charge Coupled Device) that takes in lighting information and detects the colour.
- The colour balance may vary depending on the lighting conditions; white balance is used to preserve natural colours under different lighting conditions.
- You can set the white balance in (MOVIE), (PROGRAM), A, S, and M modes.

1. Turn your camera on by setting the Power Switch to (CAMERA) mode.
2. Press the Navigation Wheel once.
   - The **AWB** indicator appears on the LCD monitor.
3. Press the UP or DOWN button to select White Balance (**AWB**).
   - The White Balance control bar appears while the current setting is highlighted in Blue.

						AWB
Manual	Glow Lamp	Halogen	Fluorescent	Cloudy	Sunny	AUTO

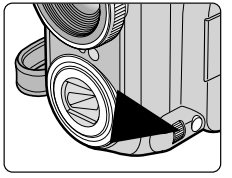
4. Press the LEFT or RIGHT button to select the desired White Balance setting.
   - The selected option is highlighted in Blue.
5. Press the Navigation Wheel again to apply your selection and exit the setting screen.
   - The selected option's indicator appears on the LCD monitor.

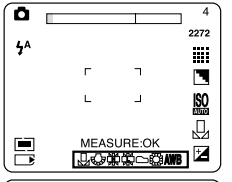
Reference

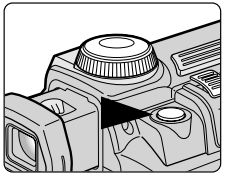
- Setting the White Balance may produce different colour balances.
- AWB (Auto White Balance) mode helps to have natural colours under most cases.
- White Balance setting is memorized in current (CAMERA) mode.
- Using EASYQ mode cancels the White Balance setting. To recover your White Balance setting, exit the EASYQ mode.

The Camera : Advanced Techniques

Setting the Manual White Balance







- You can set the white balance in (MOVIE), (PROGRAM), A, S, and M modes.

1. Set the White Balance Mode to (MANUAL), following steps 1 ~ 4 on the previous page.
2. Frame your camera on a white area (such as a wall), filling the LCD monitor (or viewfinder) with white.
3. Press the OK button to set the White Balance.
4. The new White Balance setting will be applied to future picture taking.

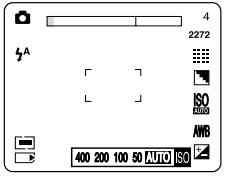
Reference

- Using a Bright Gray colour area instead of White help brighten the white balance.
- Using coloured areas instead of White will emphasize the complementary colour.
- White Balance setting is memorized in current (CAMERA) mode.
- Using EASYQ mode cancels the White Balance setting. To recover your White Balance setting, exit the EASYQ mode.

The Camera : Advanced Techniques

Setting the ISO Sensitivity

- Sensitivity is a measure of how rapidly the camera reacts to a light source. The higher the sensitivity, the brighter the picture is under the same exposure condition.
- Allowing the flash to fire will help brighten the picture. However, if other settings disable the flash use, set the ISO sensitivity to a higher level.
- Set the Mode Dial to (PROGRAM), A, S or M.



1. Press the Navigation Wheel once.
   - The **ISO** indicator appears on the LCD monitor.
2. Press the UP or DOWN button to select ISO Setting.
   - The adjustable ISO control bar appears on the LCD monitor.
3. Press the LEFT or RIGHT button to set the desired ISO mode.
   The available options are:

AUTO	Automatically sets the ISO to compensate for various lighting conditions (up to 400)
50	This mode is recommended for bright lighting conditions.
100	This mode is recommended for most situations except when lighting is poor or when higher shutter speeds are required.
200	The image may be grainy when set to this mode or higher.
400	The image may be grainy. Sharpening may raise the noise level.

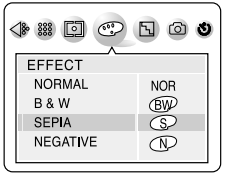
4. When you are satisfied, press the Navigation Wheel again.
   - The selected ISO Sensitivity level is displayed on the LCD monitor.

Reference

- Higher ISO sensitivity might produce a grainy (noisy) effect on the picture.
- AUTO ISO mode will allow you to take quality pictures in most lighting conditions.

The Camera : Advanced Techniques

Using Digital Special Effects



- ❖ The DSE (Digital Special Effects) function works only in Camera modes.
- ❖ Digital Special Effects allow the user to create professional looking effects on their pictures.

1. Turn your camera on by setting the Power Switch to (CAMERA) mode.
2. Press the MENU button.
   - ■ The top menu including (EFFECT) is displayed.
3. Press the LEFT or RIGHT button to select (EFFECT), then press the DOWN button.
   - ■ The available options are listed.

NORMAL	No Special Effect is applied
B&W	Changes the image to Black and White
SEPIA	Changes the image to Brown Tones similar to old photos
NEGATIVE	Inverts the Colour

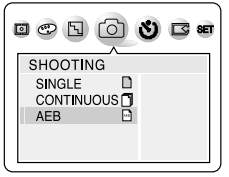
4. Select an option by pressing the DOWN or UP button.
   - ■ The selected option is applied.
5. Press the OK or MENU button to apply your selection and exit the MENU screen.

Reference

- ❖ It takes a few seconds to apply the special effects.

The Camera : Advanced Techniques

Taking Multiple Images Using Auto Exposure Bracketing



- From time to time, determining the best exposure setting for a picture may be difficult and you may not have time to check the results and try again. Auto Exposure Bracketing allows the user to vary exposure compensation settings automatically over a series of photos, bracketing a selected exposure compensation setting.
- Auto Exposure Bracketing works in (PROGRAM) mode.
- Auto Exposure Bracketing takes 3 continuous shots with the following exposure compensations: -5EV (negative), 0EV (standard), +5EV (positive)

1. Turn your camera on by setting the Power Switch to (CAMERA) mode.
2. Press the MENU button.
   - The top menu including (SHOOTING) is displayed.
3. Press the LEFT or RIGHT button to select (SHOOTING), then press the DOWN button.
   - The available options are listed.
4. Select AEB by pressing the UP or DOWN button, then press the OK button.
   - The selected option is applied.
5. Frame your subject and press the PHOTO button to start bracketing.
   - 3 continuous pictures using exposure bracketing are taken.

Reference

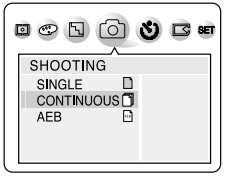
- The Built-In Flash is disabled for Auto Exposure Bracketing and Continuous Shots.
- The Digital Zoom is not available for Auto Exposure Bracketing and Continuous Shots.
- If there is not enough free space to save the 3 pictures, the Auto Exposure Bracketing will not work.
- Using a tripod is recommended for Auto Exposure Bracketing to prevent blurred images.
- AE Lock and Auto Exposure Bracketing cannot be used at the same time in A, S, M (Manual) modes.

The Camera - Advanced Techniques

Taking Multiple Images using Continuous Shot

- Continuous Shot allows the user to take consecutive pictures of a moving object.
- Continuous recording will occur while the PHOTO button is being pressed.
  - Records pictures continuously up to the storage capacity.

1. Turn your camera on by setting the Power Switch to (CAMERA) mode.
2. Press the MENU button.
   - The top menu including (SHOOTING) is displayed.
3. Press the LEFT or RIGHT button to select (SHOOTING), then press the DOWN button.
   - The available options are listed.
4. Select CONTINUOUS by pressing the DOWN or UP button, then press the OK button.
   - The selected option is applied.
5. Frame your subject and press the PHOTO button to start picture taking.



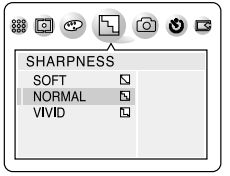
Reference

- The Built-In Flash is disabled for Auto Exposure Bracketing and Continuous Shot.
- The Digital Zoom is not available for Auto Exposure Bracketing and Continuous Shot.
- If there is not enough free space to save 3 pictures, Continuous Shot will not work.

The Camera : Advanced Techniques

Setting the Sharpness

❖ This option allows the user to obtain sharper images by processing the picture after it is shot.



1. Turn your camera on by setting the Power Switch to (CAMERA) mode.
2. Press the MENU button.
   - The top menu including (SHARPNESS) is displayed.
3. Press the LEFT or RIGHT button to select (SHARPNESS), then press the DOWN button.
   - The available options are listed.

SOFT	Smoothes the edges
NORMAL	No Sharpening is applied
VIVID	Enhances to sharpen the edges

4. Select an option by pressing the DOWN or UP button.
5. Press the OK or MENU button to apply your selection and exit the menu screen.
   - The sharpness indicator for the selected option is displayed on the LCD monitor.

Reference

❖ Enhancing Sharpness while using the high ISO Sensitivity setting may result in grainy images.

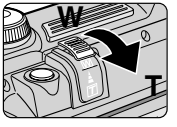
The Camera : Advanced Techniques

Using the Digital Zoom

- A 3x optical zoom and 12x digital zoom are available. The Zoom indicator shows the current zooming status. A divider indicates the border between optical and digital zooming. The digital zoom digitally processes data from the CCD (Charge Coupled Device, Image Sensor) to enlarge the center portion of the image to fill the frame and may produce a less detailed and slightly grainy picture.

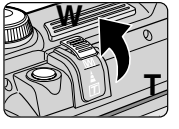
Zooming In

Push the Zoom Lever toward the TELE side, to zoom in until the zooming indicator crosses the line to the TELE side. After reaching the maximum optical zoom level, pushing the Zoom Lever downward even further automatically turns on the Digital Zoom.



Zooming Out

Push the Zoom Lever toward the WIDE side to zoom out until the zooming indicator crosses the line to the WIDE side. After reaching the minimum digital zoom level, pushing the Zoom Lever even further automatically turns off the Digital Zoom and returns to the Optical Zoom.



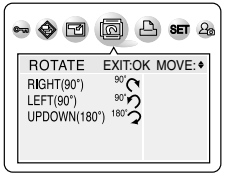
Reference

- Digital Zooming may produce grainy (noisy) pictures.
- Saving pictures which use the Digital Zoom may take more time.
- The Digital Zoom is not available for Motion Clips or NIGHT scene mode.
- Do not obstruct the lens movement while zooming.

The Camera : Advanced Techniques

Rotating a Stored Picture

- This function works only in the Camera (PLAY) mode.
- This function works only for still images recorded onto the memory card.
- You can rotate a stored picture while viewing it.



1. Turn on your camera by setting the Power Switch to (CAMERA) mode.
2. Set the Mode Dial to (PLAY) mode.
   - A stored picture is displayed on the LCD monitor.
3. Press the LEFT or RIGHT button to locate the picture you wish to rotate.
4. Press the MENU button.
   - The top menu including (ROTATE) is displayed.
5. Press the LEFT or RIGHT button to select (ROTATE), then press the DOWN button.
   - The available options are listed: RIGHT(90°), LEFT(90°), and UPDOWN(180°).
6. Select an option by pressing the DOWN or UP button, then press the OK button.
   - The selected option is applied and automatically exits from the menu screen.

Reference

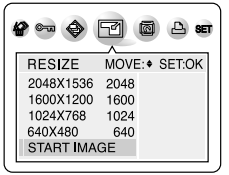
- RIGHT(90°) rotates the image in a clockwise direction.
- LEFT(90°) rotates the image in a counterclockwise direction.
- Rotated image display will have blank margins on the sides.
- Rotating the picture for display does not affect the stored image quality. Actual pictures are not rotated to protect the image quality.

The Camera : Advanced Techniques

Resizing a Stored Picture

- This function works only in the Camera (PLAY) mode.
- This function works only for still images recorded onto the memory card.
- Only downsizing is available. Enlarging low resolution pictures into higher resolutions is not available.
- Choose this option to scale down your stored pictures.
- This function utilizes JPEG technology.

1. Turn on your camera by setting the Power Switch to (CAMERA) mode.
2. Set the Mode Dial to (PLAY) mode.
   - A stored picture is displayed on the LCD monitor.
3. Press the LEFT or RIGHT button to locate the picture you wish to resize.
4. Press the MENU button.
   - The top menu including (RESIZE) is displayed.
5. Press the LEFT or RIGHT button to select (RESIZE), then press the DOWN button.
   - Available image resolutions are listed.
6. Select an option by pressing the DOWN or UP button, then press the OK button.
   - The selected option is applied and automatically exits from the menu screen.
   - Select START IMAGE if you want to save the image as START IMAGE 3.



(2272X1704: VP-D6050(i) only)

Reference

- You can select and resize a still image and then save it to appear as your new start-up image (see page 133).
- Resizing for the START IMAGE size saves a new picture to the camcorder's internal memory, not to the memory card.
- Only JPEG file types can be resized. TIFF and motion clips cannot be resized.
- Only downsizing is supported. Enlarging a picture is not supported.
- Resizing does not delete the original picture. An additional resized picture is saved on the memory card.
- If there is no space for the additional resized picture, it is not saved and the message “CARD FULL!” appears.

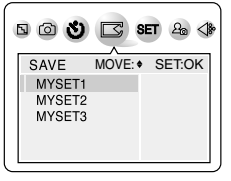
The Camera : Advanced Techniques

Customizing Your Camera – MySET Menu

- MySET menu works only in (CAMERA) Modes.
- Customize your camera to memorize frequently accessed settings for easier use. MySET allows the user to recall memorized settings to ready the camera in seconds.

Memorizing Your Current Settings

- You can save up to 3 different settings using MYSET1, MYSET2 and MYSET3.



1. Turn your camera on by setting the Power Switch to (CAMERA) mode.
2. Set the Mode Dial to desired camera mode.
   - The available modes are (PROGRAM), A, S and M modes.
3. Set all the options to be memorized such as exposure, white balance, image resolution and other picture taking conditions.
4. Press the MENU button.
   - The top menu including (SAVE) is displayed.
5. Press the LEFT or RIGHT button to select (SAVE).
   - The submenu entitled “SAVE” is displayed.
6. Press the DOWN or UP button to select MYSET1, MYSET2 or MYSET3.
   - The current settings are saved in the selected MYSET memory.
7. Press the OK button to save and exit the menu screen.

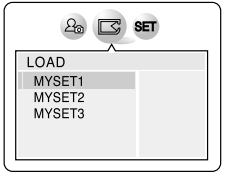
Reference

- The settings which can be saved are:
  Macro, Self-Timer, Flash, Focus (Manual), Exposure Compensation, White Balance, ISO Sensitivity settings, Picture Size, Picture Quality, Metering, Digital Special Effect, Sharpness, Continuous Shot, Scene, Setup Menu and other settings.
- The Flash mode and Continuous Shot settings cannot be saved at the same time.
- The saved F. No may change when you adjust the zoom lever to zoom in or out.

The Camera : Advanced Techniques

Loading Your Customized Settings

✤ After saving your MySET configurations as instructed in the previous page, follow these steps to recall your MySET configuration at a later time:

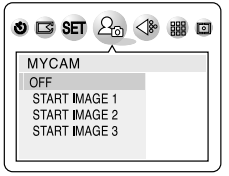


1. Turn your camcorder on by setting the Power Switch to (CAMERA) mode.
2. Set the Mode Dial to MySET.
3. Press the MENU button.
   - The top menu including (MySET) is displayed and “LOAD” menu is displayed.
4. Press the DOWN or UP button to select MYSET1, MYSET2 or MYSET3.
   - The memorized settings are recalled.
5. Press the OK or MENU button to save and exit the menu screen.

The Camera : Advanced Techniques

Customizing Your Camera – Changing the Start-Up Image

- This function works in (CAMERA) mode.
- This function changes the starting image that is displayed when the camera is turned on.
- You can select and resize a still image to appear as your new start-up image.



1. Turn your camera on by setting the Power Switch to (CAMERA) mode.

2. Set the Mode Dial to any camera modes, then press the MENU button.
   - The top menu including the (MYCAM) is displayed.

3. Press the LEFT or RIGHT button to select (MYCAM), then press the DOWN button.

4. Press the DOWN or UP button to select START IMAGE 3.
   - You must first select an image to save in START IMAGE 3. See page 130.

5. Press the OK button to save and exit the menu screen.

Reference

- START IMAGE 1 and START IMAGE 2 are Samsung logo images and cannot be changed.
- START IMAGE 3 should be saved in “START IMAGE” size.
- Formatting or deleting the still picture on the memory card does not affect the start-up images. Start-up images are saved in the built-in internal memory of the Camera.

The Camera : Advanced Techniques

Zooming & Trimming Recorded Pictures (Playback ZOOM) While Viewing

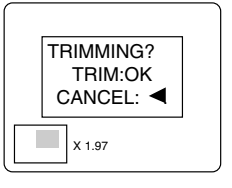
- This function allows the user to have a more detailed view of the picture using the LCD monitor.
- Enlarge a portion of the picture to see more detail and move the zoom tool around the picture.

Zooming the Picture

1. Turn your camcorder on by setting the Power Switch to (CAMERA) mode.
2. Set the Mode Dial to (PLAY) mode.
   - The last picture taken is displayed.
3. Select a picture by pressing the LEFT or RIGHT button.
   - The selected picture is displayed.
4. Pull the Zoom Lever to TELE side to enter the zoom mode, then use the Zoom Lever to zoom in or zoom out.
   - A small window appears in the bottom left of the LCD monitor showing the current portion of the full picture.
5. Press the LEFT, RIGHT, DOWN, or UP button to move around the picture.
6. To exit Playback Zoom, push the zoom lever toward the W(WIDE) end until the picture returns to normal size.
   - The small window disappears and returns to normal viewing mode.

Trimming the Picture

1. Pull the Zoom Lever to TELE side to enter the zoom mode, then use the Zoom Lever to zoom in or zoom out.
   - Press the LEFT, RIGHT, DOWN, or UP button to move around the picture.
2. Zoom in to any portion of a stored image following the instructions above.
3. Press the OK button.
   The message “TRIMMING?” appears on the LCD monitor.
4. Press the OK button to confirm the trim, or press the LEFT button to cancel.
   OK: Precedes with the trimming and saves the trimmed picture as a new file.
   LEFT: Cancels the trimming and returns to PLAY mode.



Reference

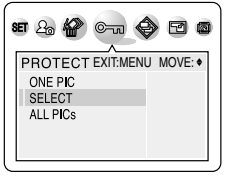
- Trimming an image produces a new trimmed image which it saves on the memory card. If no space is available to store the new trimmed image, it automatically cancels.

The Camera : Advanced Techniques

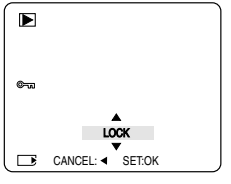
Protecting Stored Pictures

- Selecting PROTECT from the MENU saves valuable images from accidental deletion.
- You can set or cancel the protection on your pictures in ▶ (PLAY) mode.
- You may set a picture to LOCK to protect it, or UNLOCK to cancel the protection.

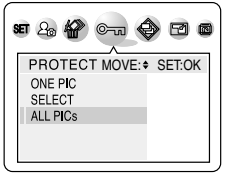
1. Turn your camera on by setting the Power Switch to 📷 (CAMERA) mode.
2. Set the Mode Dial to ▶ (PLAY) mode.
   - A stored picture is displayed on the LCD Monitor.
3. Press the MENU button.
   - The top menu including 🔑 (PROTECT) is displayed.
4. Press the LEFT or RIGHT button to select the 🔑 (PROTECT), then press the DOWN button.
   - The ONE PIC , SELECT and ALL PICs submenu appears.
5. Select an option by pressing the DOWN or UP button, then press the MENU button.
   ONE PIC – SELECT – ALL PICs

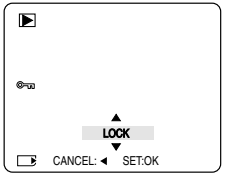


- To Protect Current Picture
  - ✓ Select “ONE PIC”
1. Press the DOWN or UP button to select “ONE PIC”, then press the OK button.
   - The available options are displayed: “LOCK” or “UNLOCK”.
2. Press the DOWN or UP button to LOCK or UNLOCK the picture, then press OK button to set your choice.
   - The 🔑 protection indicator appears for locked (protected) images, or 🔑 indicator disappears when it is unlocked.



The Camera : Advanced Techniques





❖ To Select Pictures to be Protected
  ✓ Select “SELECT”.
1. Press the DOWN or UP button to select “SELECT”, then press the OK button.
   ■ The multiple pictures screen appears.
2. To move the cursor, use the LEFT, RIGHT, DOWN or UP buttons then press the MENU button to lock the selected picture.
   ■ The 🔑 indicator appears on the picture.
3. To cancel the protection and unlock the picture, press the MENU button again on a selected picture.
   ■ The 🔑 indicator disappears
4. When you are done, press the OK button to exit the multiple pictures screen.
   ■ It will return to the one picture screen.

❖ To Protect All Images
1. Press the DOWN or UP button to select “ALL PICs”, then press the OK button.
   ■ The available LOCK and UNLOCK options are displayed.
2. Select an option by pressing the DOWN or UP button, then press the OK button.
   ■ Your selection is applied. When all pictures are locked, the 🔑 indicator is displayed on each picture.

Reference

❖ Protected pictures will show the 🔑 mark when they are displayed.
❖ If the write protection tab on the memory card is set to LOCK, you cannot set image protection.

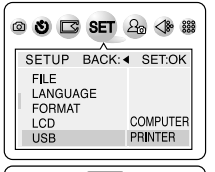
Miscellaneous Information

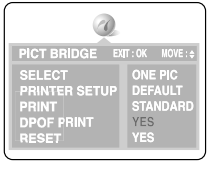
Printing Your Pictures – Using the PictBridge™

- By connecting the camera to printers with PictBridge support (sold separately), you can send images from the memory card directly to the printer with a few simple operations using the camera buttons.
- With the PictBridge Support, you can control the printer directly through your camera in order to print out stored pictures. For direct printing of your stored pictures using the PictBridge function, you must connect your camera to a PictBridge printer using a USB cable.
- To print out images stored in the memory card using PictBridge support, follow the steps:
  - Connect your camera to a PictBridge supporting printer and then select images to print.
  - Customize print options as described in page 139 if desired and then print your selected images (refer to page 141).

Connecting To a Printer

1. Turn your printer power off. Turn your camera on by setting the Power Switch to (CAMERA) mode.
2. Set the Mode DIAL to (PLAY) mode, then press the MENU button.
   - The top menu including (SETUP) is displayed.
3. Press the LEFT or RIGHT button to select (SETUP) then press the DOWN button.
   - The submenu including "USB" is displayed.
4. Press the DOWN or UP button to select USB, then press the RIGHT button.
   - The available options are listed: "COMPUTER" and "PRINTER".
5. Select "PRINTER", then press the OK button.
6. Press the MENU button to exit the settings screen.
7. Connect your camera to the printer using the provided USB cable.
8. Turn your printer power on.
   - The PictBridge connection screen appears. The messages "PLEASE WAIT" and "USB I/F PRINTER" (or "USB I/F COMPUTER") appear shortly, then the PictBridge menu screen appears.





Reference

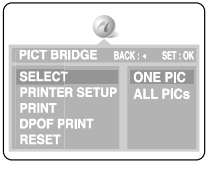
- If the USB option is set to "COMPUTER", "USB I/F COMPUTER" will be displayed on the LCD or Viewfinder with a "PLEASE WAIT" message.
- If the USB option is set to "PRINTER", "USB I/F PRINTER" will be displayed with a "PLEASE WAIT" message on the LCD or Viewfinder.
- The PictBridge™ is a registered trademark of CIPA(Camera & Imaging Products Association), an image transfer standard developed by Canon, Fuji, HP, Olympus, Seiko Epson, and Sony.

Miscellaneous Information

Selecting Images

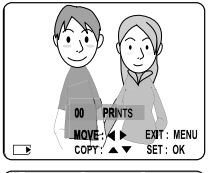
❖ To select images, select “SELECT” menu.

1. In the PictBridge settings menu, press the DOWN button to select “SELECT”.

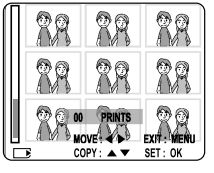


2. Press the RIGHT button.
   - The available options are listed: ONE PIC and ALL PICs.

3. Select an option using the DOWN or UP button, then press the OK button.
   - If “ONE PIC” is selected, number of prints setting menu is displayed on top of the current image. To change the number of prints, press the UP or DOWN button. To find another picture, press the LEFT or RIGHT button.
   - If “ALL PICs” is selected, number of prints setting menu is displayed on the multiple pictures screen. To change the number of prints, press the UP or DOWN button.



4. Press the OK button to confirm the number of prints and exit the multiple pictures screen.
   - It will return to the PictBridge settings screen.



Reference

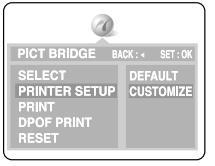
❖ The actual setup menu screen may differ from above instructions depending on the PictBridge printer’s manufacturer. Refer to the printer’s documentation for further details.

❖ Unsupported menu items are displayed on the LCD monitor as deactivated.

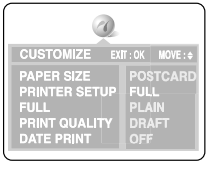
Miscellaneous Information

Customizing Print Options

❖ To customize your print options such as PAPER SIZE, LAYOUT, PAPER TYPE, PRINT QUALITY, DATE PRINT, and FILE NAME imprint options, select the PRINTER SETUP menu.



1. In the PictBridge settings menu, press the DOWN button to select “PRINTER SETUP”.
   - The available options are listed: DEFAULT and CUSTOMIZE.
   - To change options, select CUSTOMIZE. To reset your settings back to default, select DEFAULT.
2. Press the RIGHT button and select CUSTOMIZE by using DOWN button or UP button, then press the OK button.
   - CUSTOMIZE menu is displayed.



3. In the CUSTOMIZE menu, you can set following options:

PAPER SIZE	POSTCARD, 4X6, 8X10, A6, A4, B5	You can select a paper size that is available from the printer.
LAYOUT	FULL, INDEX, 1, 2, 4, 6, 8	The option “1” has borders around. Others will not.
PAPER TYPE	PLAIN, PHOTO, FASTPHOTO	Set the type according to the paper type you are using.
PRINT QUALITY	DRAFT, NORMAL, FINE	Finer setting will take more time to print.
DATE PRINT	OFF, ON	Date and Time imprint option.
FILE NAME	OFF, ON	Filename imprint option.

4. After setting options, press the MENU button to exit the CUSTOMIZE menu screen.
   - It will return to the PictBridge settings screen.

Reference

❖ The “INDEX” option of LAYOUT will print thumbnail images of all the selected pictures.

❖ Unsupported menu items are displayed on the LCD monitor as deactivated.

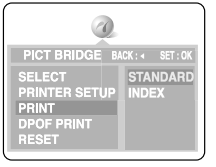
❖ INDEX printing over many files (exceeding 10) using PictBridge may take long period of time. For faster INDEX printing, use the DPOF INDEX printing (refer to page 143) or thumbnail printing on a PC.

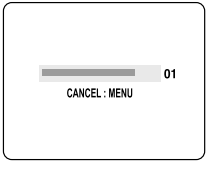
Miscellaneous Information

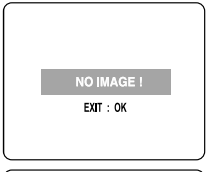
Printing Images

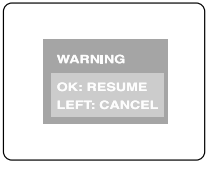
- After selecting images and the PRINTER SETUP settings, print your pictures by choosing the PRINT menu.

1. In the PictBridge settings menu, press the DOWN button to select “PRINT”.
   - The available options are listed: STANDARD and INDEX.
2. Press the RIGHT button.
3. Select an option using the DOWN or UP button, then press the OK button.
   - If “STANDARD” is selected, standard image printing will start.
   - If “INDEX” is selected, index printing on all the selected images will start.
4. Progress Bar will be displayed.
5. To cancel the printing, press the MENU button.
   - If there is no selected image, “NO IMAGE” message will be displayed. In that case, to go back to the PictBridge main menu page, press the OK button.
6. After successfully printing pictures, the PictBridge settings menu will be displayed.







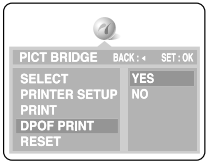


Reference

- If there is no selected image to print, the “NO IMAGE” message appears on the LCD monitor.
- If there is an error in the image, the “FILE ERROR” message appears on the LCD monitor.
- If an unrecoverable error occurred during printing, “ERROR” is displayed. Press the MENU button to return to the PictBridge main menu.
- If a recoverable error occurs during printing, a “WARNING” message will be displayed with the RESUME and CANCEL options. Press the OK button to select RESUME, then printing continues. Press the LEFT button to select CANCEL, which stops the printing.

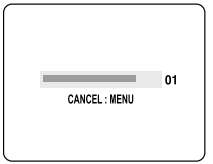
Miscellaneous Information

Printing Images Using DPOF (Digital Print Order Format) Settings

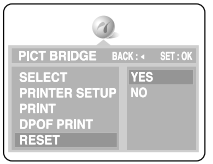


❖ DPOF PRINT requires at least one DPOF marked image on the memory card.

1. Set the DPOF settings as described in page 142.
2. Connect your camera and the printer as described in page 137.
   - ■ The PictBridge settings menu is displayed.
3. Press the DOWN button to select “DPOF PRINT”, then press the RIGHT button.
   - ■ The available options are listed: YES and NO.
4. Select “YES” by pressing the DOWN or UP button, then press the OK button to start printing.
   - ■ DPOF printing starts to print images and the progress bar is displayed.
5. To cancel the printing, press the MENU button.



Resetting PictBridge Settings



1. Press the DOWN button to select “RESET”, then press the RIGHT button.
   - ■ The available options of “YES” and “NO” are displayed.
2. Select an option by pressing the UP or DOWN button, then press the OK button.
   - ■ If “YES” is selected, changes made by the user are reset to the default settings.

Reference

❖ If no image is marked for DPOF, “DPOF PRINT” in PictBridge settings menu cannot be selected.
❖ PictBridge supporting printers are commercially available.
❖ Use the USB cable provided with the Camera.
❖ Use the AC power adapter for your camera during PictBridge Direct Printing. Turning your camera off during the printing might damage data on the memory card.
❖ Printing still images is supported. Motion clips are not available for printing.

Miscellaneous Information

Printing Your Pictures – Using the DPOF (Digital Print Order Format)

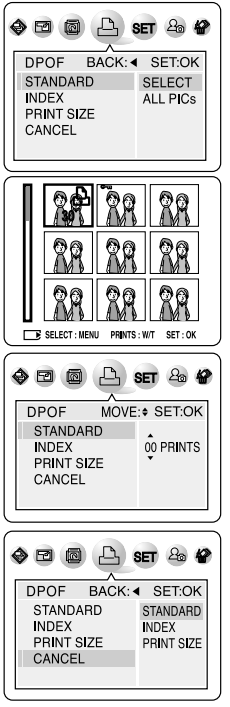
- Mark your images with DPOF (Digital Print Order Format) marking to utilize automatic printing.
- DPOF menu only works in (CAMERA)'s PLAY mode.
- You can mark your images with DPOF in 3 ways: STANDARD, INDEX and PRINT SIZE.

Before you begin!

- Turn your camera on by setting the Power Switch to (CAMERA) mode.
- Set the Mode Dial to PLAY mode.

Standard DPOF Setup

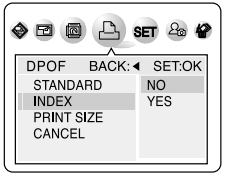
1. Press the MENU button, then select (DPOF) by using the LEFT and RIGHT button.
   - Submenu including "STANDARD" is displayed.
2. Press the DOWN or UP button to select "STANDARD", then press the RIGHT button.
   - The available options of "SELECT" and "ALL PICs" are displayed.
3. Select an option by pressing the DOWN or UP button, then press the OK button.
4. If "SELECT" is selected, multiple pictures screen is displayed and the current selection is highlighted with a yellow outline. To set the DPOF print selection, press the MENU button. To change the number of copies, use the Zoom Lever to set the quantity.
   - Print mark and selected number of copies are displayed. To cancel the selection, press the MENU button again while it is highlighted in a yellow outline. To exit the multiple pictures screen, press the OK button.
5. Press the OK button to set your choice and and exit the multiple pictures screen.
   - If "ALL PICs" is selected, number of prints setting menu is displayed. Press the UP or DOWN button to set the number of prints. To exit the multiple pictures screen, press the OK button.
   - To cancel your selection made, select "CANCEL" from the DPOF menu, then press the RIGHT button.
     The available options of "STANDARD", "INDEX", and "PRINT SIZE" are available. Select "STANDARD", then press the OK button to cancel your selection.

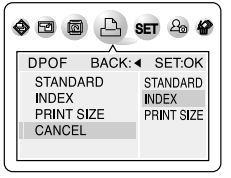


Miscellaneous Information

Index DPOF Setup

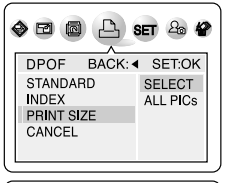
1. Press the MENU button, then select (DPOF) by using the LEFT and RIGHT button.
   - Submenu including “INDEX” is displayed.
2. Press the DOWN or UP button to select “INDEX”, then press the RIGHT button.
   - The available options of “NO” and “YES” are displayed.
3. Select an option by pressing the DOWN or UP button, then press the OK button.
   - If “YES” is selected, all the images stored in the memory card will be marked for index printing.
4. To cancel your selection made, select “CANCEL” from the DPOF menu.
   - The available options of “STANDARD”, “INDEX”, and “PRINT SIZE” are available. Select “INDEX”, then press the OK button to cancel your selection.

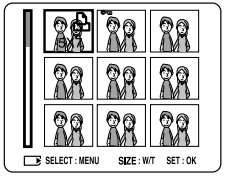




Print Size DPOF Setup

1. Press the MENU button, then select (DPOF) by using the LEFT and RIGHT button.
   - Submenu including “PRINT SIZE” is displayed.
2. Press the DOWN or UP button to select “PRINT SIZE”, then press the RIGHT button.
   - The available options of “SELECT” and “ALL PICs” are displayed.
3. Select an option by pressing the DOWN or UP button, then press the OK button.
4. If “SELECT” is selected, multiple pictures screen is displayed and the current selection is highlighted with a yellow outline. To set the DPOF print selection, press the MENU button. To change the size, use the Zoom Lever.
   - Print mark and selected print size are displayed. To cancel the selection, press the MENU button again while it is highlighted in a yellow outline.

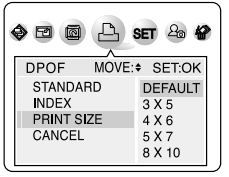


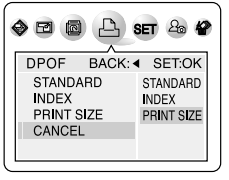


Miscellaneous Information

5. Press the OK button to set your choice and exit the multiple pictures screen.
   - If “ALL PICs” is selected, print size setting menu is displayed. Press the UP or DOWN button to set the print size. To exit the multiple pictures screen, press the OK button.
   - To cancel your selection made, select “CANCEL” from the DPOF menu, then press the RIGHT button.

     The available options of “STANDARD”, “INDEX”, and “PRINT SIZE” are available. Select “PRINT SIZE”, then press the OK button to cancel your selection.





Printing DPOF Marked Images

- You can print out DPOF marked images using PictBridge menu if the printer supports PictBridge (refer to page 141).
- You can print out DPOF marked images by inserting your memory card directly to a DPOF supporting printer that has memory card interface. Or, you can connect your camera using USB cable to a printer that supports DPOF printing. Refer to printer’s documentation for further details.

Reference

- DPOF supporting printers are commercially available.
- Use the USB cable provided with the camera.

Miscellaneous Information

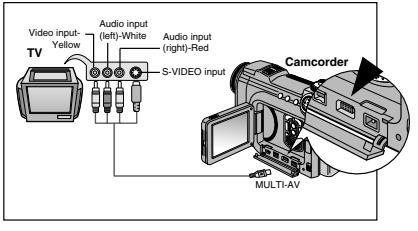
Connecting to Other Devices – TV and VCR

- You can connect your device to a TV set directly or through a VCR to view your recordings and pictures on the TV screen, using the Multi-AV cable.
- You can connect your device to a PC to copy or move your recordings and pictures to the hard disk drive, using the USB cable or the DV cable.
- You can connect your device to other DV-enabled devices using the DV cable.

Connecting Directly to a TV Set

■ **To Connect to a TV set**

1. Connect the Multi-AV cable to your camcorder's multi-AV jack.
2. Connect the Multi-AV cable to the external input terminal of your TV set by matching the colours of the terminals.



■ **To Play Back Recorded Video**

1. Turn your TV on and select the external input source connected to your camcorder.
2. Locate the desired position on the tape using the ◀◀ (REW) or ▶▶ (FF) button.
3. Press the ►/II (PLAY/STILL) button of the camcorder to start playback.
4. To stop the playback, press the ■ (STOP) button.

Reference

- Some TV sets have LINE-IN input terminals instead of External Input terminals. Refer to the manufacturer's instructions for detailed information on connecting external devices.
- If a TV set has an S-VIDEO input terminal, you may use S-VIDEO for better quality.
- If you use an S-VIDEO cable, you will need to connect an audio cable.
- If only a mono audio input is available on the TV set, use the audio cable with the white plug.

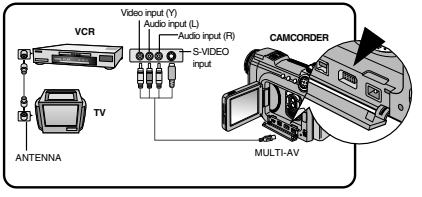
Miscellaneous Information

Connecting to a TV Set Through a VCR

❖ If there are no input terminals for external devices on your TV set and a VCR is connected to your TV set using a coaxial cable, you can utilize the VCR to connect your camcorder to the TV set.

■ To Connect to a VCR that is Connected to Your TV Set

1. Connect the Multi-AV cable to your camcorder's multi-AV jack.
2. Connect the Multi-AV cable to the External Inputs (LINE-IN) on the VCR by matching the colours of the terminals.
3. Connect the TV and VCR using the coaxial cable. Refer to the Video or TV's instruction book for further connection details.
4. Set the input source of the VCR to the external input source connected to your camcorder.



■ To Play Back Recorded Video

1. Turn your TV on and select the external input source that is connected to the VCR. Set the TV channel to view the VCR. 3 or 4 is most often used.
2. Locate the desired position on the tape using the ◀◀ (REW) or ▶▶ (FF) button.
3. Press the ▶/II (PLAY/STILL) button of the camcorder to start playback.
4. To stop the playback, press the ■ (STOP) button.

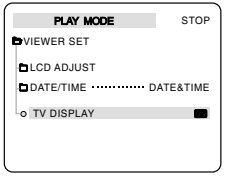
Reference

❖ If the VCR has an S-VIDEO input terminal, you may use S-VIDEO for better quality.
❖ The S-VIDEO terminal transmits video only. Connect AUDIO cables for sound.
❖ If only a mono audio input is available on the TV set, use the audio cable with the white plug.

Miscellaneous Information

Viewing OSD on the TV screen

- You can set the OSD (On-Screen Display) menu so it does not display on the TV.
- In the camcorder's VIEWER menu, you can turn the TV DISPLAY on or off.
- Turning the TV DISPLAY off does not affect the video transfer to the TV.

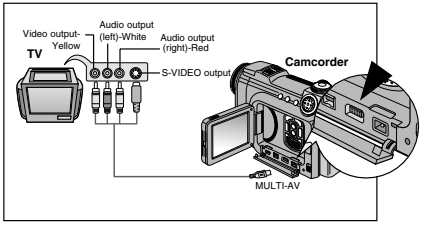


1. Turn on your camcorder by setting the Power Switch to PLAY.
2. Press the MENU button.
   - The top menu including “VIEWER” is displayed.
3. Press the UP or DOWN button to select “VIEWER”, then press the OK button.
   - The submenu including “TV DISPLAY” is displayed.
4. Press the UP or DOWN button to select “TV DISPLAY”, then press the OK button.
   - Each press of the OK button toggles between ON and OFF.

Miscellaneous Information

Recording TV Programmes Using the Camcorder (VP-D6050i/D6040i only)

- You can record a TV program using your camcorder.
- Television programs, movie video tapes, DVD titles, films and other program materials may be copyrighted. Unauthorized recording of copyrighted materials may infringe on the rights of the Copyright owners and against copyright laws.
- Insert a blank cassette for recording.
- Connect your camcorder to a TV set using the Multi-AV cable before recording.

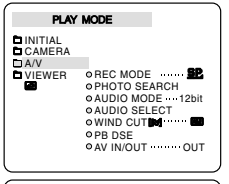


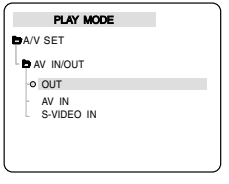
■ To Connect to a TV set

1. Connect the Multi-AV cable to your camcorder's multi-AV jack.
2. Connect the Multi-AV cable to the external outputs(LINE-OUT) of your TV set by matching the colours of the terminals.

■ To Record a TV Programme

1. Turn your camcorder on by setting the Power Switch to PLAY mode.
2. Turn your TV on and select a channel to record.
3. Press the MENU button and select A/V, and select AV IN/OUT using the OK button.
   - ■ The available options are listed: "OUT", "AV IN", "S-VIDEO IN".
4. Select "AV IN" by pressing the DOWN or UP button, then press the OK button.
   - ■ The selected option is applied.
5. Press the MENU button to exit the menu screen.
6. Press the START/STOP button.
   - ■ The Camcorder is set to PAUSE and AV IN appears on the LCD monitor.
7. To start the recording, press the START/STOP button again.
8. To stop the recording, press the ■ (STOP) button.



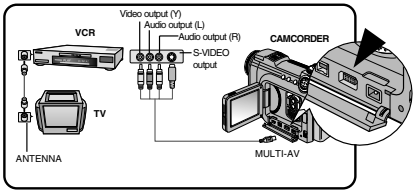


Reference

- If the TV set has an S-VIDEO output terminal, you may use S-VIDEO for better quality.
- The S-VIDEO terminal transmits video only. Connect AUDIO cables for sound.
- If only a mono audio input is available on the TV set, use the audio cable with the white plug.
- Set AV IN/OUT to "OUT" after the recording is finished.

Miscellaneous Information

Recording VCR Using the Camcorder (VP-D6050i/D6040i only)



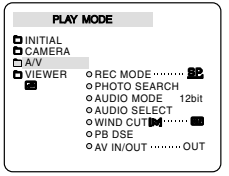
- Movie video tapes, DVD titles, films and other program materials may be copyrighted. Unauthorized recording of copyrighted materials may infringe on the rights of the Copyright owners and against copyright laws.
- Insert a blank cassette for recording.
- Connect your camcorder to a VCR using the Multi-AV cable before recording.

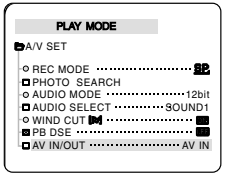
■ To Connect to a VCR

1. Connect the Multi-AV cable to your camcorder's multi-AV jack.
2. Connect the Multi-AV cable to the external outputs(LINE-OUT) of your VCR by matching the colours of the terminals.

■ To Record a Video Tape

1. Turn your camcorder on by setting the Power Switch to PLAY mode.
2. Turn your TV and VCR on.
3. Press the MENU button and select A/V, then select AV IN/OUT using OK button.
   ■ The available options are listed: "OUT", "AV IN", "S-VIDEO IN".
4. Select "AV IN" by pressing the DOWN or UP button, then press the OK button.
   ■ The selected option is applied.
5. Press the MENU button to exit the menu screen.
   ■ The message "AV IN" appears on the LCD monitor.
6. Press the START/STOP button.
   ■ The message "PAUSE" appears on the LCD monitor.
7. Play the video tape and press the START/STOP button to start recording.
8. To stop the recording, press the ■ (STOP) button.





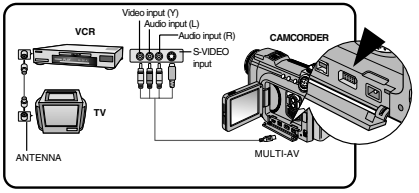
Reference

- If the VCR has an S-VIDEO output terminal, you may use S-VIDEO for better quality.
- The S-VIDEO terminal transmits video only. Connect AUDIO cables for sound.
- If only a mono audio input is available on the TV set, use the audio cable with the white plug.
- Set the AV IN/OUT to "OUT" after the recording is finished.
- Recording from an analog VCR to the camcorder is only possible when the VCR is playing back at normal speed.

Miscellaneous Information

Copying Your Recording to a VCR Tape & DVD Recorder

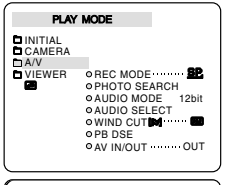
- You can copy your recordings to a regular blank video tape or DVD.
- Insert a blank cassette in your VCR or a blank DVD in your DVD Recorder to copy your camcorder recordings.
- Insert your recorded cassette in your camcorder.
- Connect your camcorder to a VCR or a DVD Recorder using the Multi-AV cable before recording (refer to page 146).

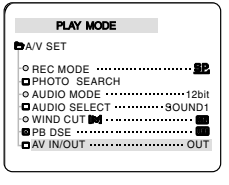


1. Prepare your VCR or DVD Recorder to record from your camcorder. Refer to the product's instructions for further details.
   - Set the input source of the VCR or DVD Recorder to the external input source connected to your camcorder.
2. Turn your camcorder on by setting the Power Switch to PLAY mode.
   - Your camcorder is ready to transfer your recording through the Multi-AV cable.
3. Start the recording on your VCR or DVD Recorder, then press the ►/II(PLAY/STILL) button to start playback.
   - The VCR or DVD Recorder begins to copy your recorded cassette.

- For VP-D6050i/D6040i models, set the AV IN/OUT direction as follows:

1. Press the MENU button.
   - The top menu including "A/V" is displayed.
2. Press the DOWN button to select "A/V", then press the OK button.
   - The submenu including "AV IN/OUT" is displayed.
3. Press the DOWN or UP button to select "AV IN/OUT", then press the OK button.
   - The available options of OUT, AV IN and S-VIDEO IN are displayed.
4. Select OUT by pressing the DOWN or UP button, then press the OK button.
   - Your camcorder is ready to transfer your recording through the Multi-AV cable.





Reference

- If the VCR or DVD Recorder has an S-VIDEO input terminal, you may use S-VIDEO for better quality.
- The S-VIDEO terminal transmits video only. Connect AUDIO cables for sound.
- If only a mono audio input is available on the VCR or DVD Recorder, use the audio cable with the white plug.

Miscellaneous Information

Connecting to Other Devices – PC

- You can connect your camcorder to a PC for copying or editing recorded video.
- DV and USB connections are supported.

Connecting to a PC Using a DV (i.Link, IEEE 1394) cable

- This function works only in the Camera ▶ (PLAY) mode.
- Using the IEEE1394 cable (DV cable), you can connect your camcorder to a PC which supports the IEEE 1394 connection.
- Windows Movie Maker and other Video Capturing Software can take input from your camcorder through this connection. Refer to the corresponding video editing software product's documentation for further information on capturing and manipulating the video.
- A Standard DV connection is quite simple. If a product has a DV port (or FireWire), you can transfer data by connecting to the DV port using a proper cable. Be careful since there are two types of DV ports (4pin and 6pin). This camcorder has a 4pin terminal.
- With a digital connection established, both the video and audio signals are transmitted in native DV digital format, allowing high quality, real-time image transfer.

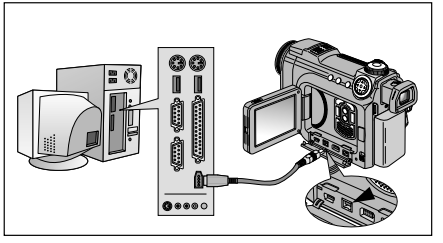
■ **PC System Requirements**

- ✓ CPU: Intel (or compatible) Pentium III 450MHz or faster PC / G3 or faster Macintosh
- ✓ Operating System: Windows 98SE, ME, XP, 2000, or Mac OS (9.1 or later)
- ✓ Main Memory: More than 64MB of RAM
- ✓ IEEE 1394 Add-on Card or built-in IEEE1394 port

Reference

- Do not connect the camcorder to a PC using both DV and USB cables. It may not operate properly.
- Operation is not guaranteed for all computer environments recommended above.
- The IEEE1394 cable (DV cable) is sold separately.
- Video Capture software is commercially available.
- Most DV enabled PCs have a 6 pin socket. In this case, a 6-4 cable is required for the connection.
- Most DV enabled Notebooks and Laptops have a 4 pin socket. Use a 4-4 cable for the connection.

Miscellaneous Information



■ **To connect your Camcorder to a PC using DV cable**

1. Turn your camcorder on by setting the Power Switch to PLAY mode.
2. Connect the DV cable to your camcorder's DV terminal which is located on the bottom left side.
   ■ If your PC has a 4-pin DV port (most laptops with DV support use 4-pin terminals), use a 4-pin to 4-pin DV cable.
3. Connect the other side of the DV cable to the DV port of the PC.
   ■ The **DV** indicator appears on the LCD monitor.

■ **To Copy Your Recording to a PC Using a DV Connection**

1. Run your Video Capturing Software and set the input source to your camcorder.
   ■ For further details on selecting the input source through the software, refer to the product's documentation.
2. Press the ▶/II (PLAY/STILL) button to start the transfer.
   ■ Recorded video is displayed on the PC screen.
3. Click on the REC button on the PC screen using the left button of the mouse.
4. To stop recording, click the ■ (STOP) button on the PC screen.

■ **To Record Using a DV Connection (VP-D6050i / D6040i only)**

1. Press the START/STOP button to begin REC PAUSE mode.
   ■ PAUSE is displayed on the LCD monitor.
2. Start playback on the other DV device while you monitor the picture.
3. Press the START/STOP button to start recording.
   ■ If you want to pause recording momentarily, press the START/STOP button again.
4. To stop recording, press the ■ (STOP) button.

Reference

✤ When using this camcorder as a recorder, the pictures that appear on the monitor may seem uneven, however recorded pictures will not be affected.

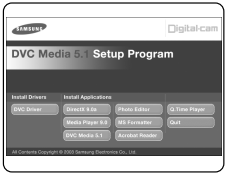
Miscellaneous Information

Connecting to a PC Using a USB cable

- Using the USB cable, you can connect your Camcorder to a PC that supports USB connections. Use the provided USB cable for connection to a PC.
- A USB cable for USB connection is provided with the product. Use the provided cable for a high speed USB connection.
- You may need to install the driver software.

■ **PC System Requirements**

- ✓ CPU: Intel (or compatible) Pentium II 400MHz or faster PC
- ✓ Operating System: Windows 98SE, ME, XP, 2000
- ✓ Main Memory: More than 128MB of RAM
- ✓ USB port



■ **To Install the Provided Software (DVC Media 5.1)**

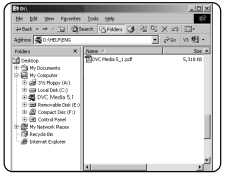
- ✓ Do not connect your device to a PC before installing the program.
- ✓ The following instructions are based on Windows 98SE operating system.

1. Insert the Software CD provided with this product into the CD-ROM drive.
   - ■ The installation screen appears on your PC monitor.
2. If the installation screen does not automatically appear, click “Run” on the Windows “Start” menu and execute the SETUP.EXE file to begin the installation.
   - ■ If your CD-ROM drive is set to “D:” drive, type “D:\setup.exe” in the RUN… dialog and press Enter on your keyboard.
3. Click on the icons listed below to install the selected software.
   - ■ DVC Driver: USB Removable Disk Driver, USB PC Camera Driver
   - ■ Applications: DirectX 9.0a, Media Player 9.0, DVC Media 5.1, Photo Editor, MS Formatter, Acrobat Reader, Q.Time Player

Reference

- Do not connect the camcorder to a PC using both DV and USB cables. It may not operate properly.
- DSC supports high-speed USB 2.0 and the DVC supports USB 1.1 data transfer.

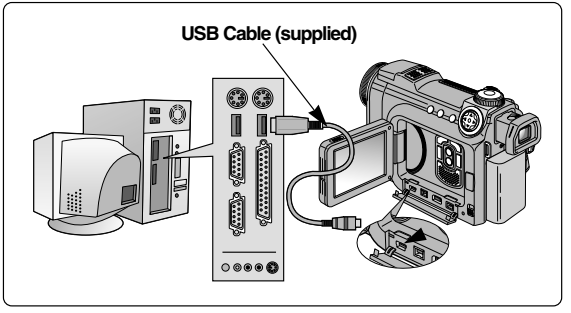
Miscellaneous Information



- DVC Media Software CD includes the driver and software for connecting and utilizing Samsung DVC Camera to the PC.
- During the use of PC, if the program is deleted or error message comes out, you can reinstall it with this CD.
- You can browse the DVC Media Software CD using Windows Explorer or other file browsers.
- After the driver is installed, be sure to install the DVC Media 5.1.
- Be sure to install the Q.Time Player to playback your motion clips transferred to a PC from your camcorder.
- For detailed instructions on software installation, refer to the PDF document “DVC Media 5_1.pdf” in the CD-ROM’s HELP folder.

■ **To Connect Your Camera to a PC using USB cable**

1. After you install the USB device driver, turn on your camera by setting the power switch to (CAMERA) mode.
2. Connect the provided USB cable to your camera’s USB port.
3. Connect the other side of the USB cable to the USB port of your PC.
   - If your Operating System is Windows XP, a Removable Disk pop-up dialogue will appear.



Miscellaneous Information

■ **To Copy Still Images Using a USB Connection**

- ✓ Set your camera to (CAMERA) mode. Copying still images only works in (CAMERA) mode.
- ✓ The PC will recognize your camera as a removable mass storage device.
- ✓ Use your Windows Explorer or other file browser to locate your stored images.
- ✓ You can copy, delete or move your stored images from the memory card to a PC.

■ **To Use Your Camcorder as a PC Camera (REC mode) / USB Streaming (REC or PLAY mode)**

- ✓ You can use this camcorder as a PC camera for video chatting, video conference and other PC camera applications.
- ✓ The screen size of the PC camera function is 160x120 pixels.
- ✓ In PC camera mode, buttons on your camera do not function during the connection except the Power Switch, Mode Dial, Zoom Lever and NIGHT CAPTURE slide button to avoid errors.
- ✓ You can transfer video to a PC and record transferred video in realtime using the DVC Media 5.1.

1. Turn your camera on by setting the Power Switch to REC or PLAY mode.
2. Establish the USB connection as above.
3. For PC camera use, run your PC camera application such as Microsoft Netmeeting.
4. For USB Streaming, run the DVC Media 5.1.

■ **To Disconnect USB Connection**

- ✓ After completing the data transfer, you must disconnect the cable in the following way:

1. Select the removable disk icon and click the right mouse button to select “Eject”.
2. Select “Confirm” and disconnect the USB cable when the pop-up screen disappears.

Reference

- ✤ In (CAMERA) mode, be sure that the Memory Card is inserted into camera before connecting USB cable. No Memory Card or an unformatted Memory Card is inserted, PC will not recognize your camera as a removable disk.
- ✤ USB Streaming transfers video in MPEG4 format and it requires DVC Media 5.1, DirectX 9.0a, Windows Media Player 9.0.
- ✤ If you disconnect the USB cable from the PC or the camcorder during the data transfer, the data transfer will stop and the data may be damaged.
- ✤ If you connect the USB cable to a PC using a USB HUB or with other devices at the same time, it might cause conflict and may not work properly. If this occurs, remove all other USB devices and try the connection again.

Maintenance

Cleaning and Maintaining the Camcorder

❖ For prolonged use of your device, read following instructions carefully.

After Using Your Camcorder

■ For the safekeeping of your device, follow these steps.
- ✓ Remove the cassette (refer to page 47).
- ✓ Turn your camcorder off.
- ✓ Remove the Battery (refer to page 28).
- ✓ Remove the Memory Card (refer to page 83)

■ To prevent any damage to the LCD monitor, do not apply excessive force on its moving parts.
■ Do not drop or in anyway shock the device.
■ For prolonged use of your device, avoid using it in places subject to excessive humidity or dust.
■ Do not leave your device in places subject to:
- ✓ Excessive humidity, steam, soot or dust
- ✓ Excessive shock or vibration.
- ✓ Extremely high (over 50°C or 122°F) or extremely low (under 0°C or 32°F) temperatures.
- ✓ Strong electromagnetic fields.
- ✓ Direct sunlight or in a closed car on a hot day.

■ The cassette should be stored away from heaters and other heat sources. Avoid storing cassettes under direct sunlight, and avoid electromagnetic fields.
■ The removed Battery Packs should be stored away from heaters and other heat sources. Do not store the battery pack with metal objects or sharp objects to avoid accidental damage to the battery pack.
■ The memory card should be stored away from heaters and other heat sources. Avoid storing memory cards under direct sunlight, and avoid electromagnetic fields. Before removing the memory card from your device, move or copy your data from the memory card to a PC. Format the memory card periodically.

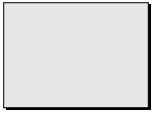
Maintenance

Cleaning the Camera Body and Video Heads

■ To Clean the Exterior of Your Device

- ✓ To clean the exterior, use a soft dry cloth. Wipe the body gently. Do not apply excessive force when cleaning, gently rub the surface.
- ✓ The LCD monitor surface should not be pressed. Use a soft dry cloth to clean the surface.
- ✓ To clean the lens, use an optional air blower to blow out dirt and other small objects. Do not wipe the lens with cloths or your fingers. If necessary, use lens cleaning paper.
- ✓ Do not use chemicals, alcohol or benzene for cleaning. Otherwise, the finish may be damaged.
- ✓ Cleaning should be done only after the battery pack has been removed, and other power sources have been disconnected.

■ To Clean the Video Heads



(Blue Screen)

- ✓ Dirty heads might cause problems with noisy recording and playback.
- ✓ To ensure normal operation of the video heads, avoid using in places subject to heavy dust.
- ✓ Avoid excessively frequent fast forwarding and rewinding of cassettes to avoid damaging the video heads.
- ✓ Excessive use of a cleaning cassette is not recommended.
- ✓ Use an optional cleaning cassette for video head cleaning. Periodic check-ups are recommended.

1. Load the Cleaning Cassette.
2. Set the Power Switch to PLAY mode.
3. Press the ►/II(PLAY/STILL) button to start cleaning.
4. Stop playing after 10 ~ 20 seconds.

Reference

- ❖ Some cleaning cassette products stop automatically. Refer to the cleaning cassette's instructions for detailed information. If the problem continues after the cleaning, consult your nearest Samsung dealer or Authorised Service Centre.
- ❖ Do not use wet-type cleaning cassettes.

Maintenance

Using Your Camcorder Abroad

- Each country or region has its own electric and colour systems.
- Before using your camcorder abroad, check the following items:

Power Sources

You can use your camcorder in any country or area with the supplied AC Power Adapter where the power input range is 100V ~ 240V, 50/60Hz.
Use a commercially available AC plug adapter if necessary, depending on the design of the local wall outlets.

Colour System

You can view your recordings using the built-in LCD monitor and viewfinder.
However, to view your recordings on a television set or to copy it to a video cassette recorder (VCR), the television set or the VCR must comply with PAL-compatible and have the appropriate Audio / Video ports. Otherwise, you may need to use a separate Video Format Transcoder (NTSC-PAL format Converter).

PAL-Compatible Countries / Regions
Australia, Austria, Belgium, Bulgaria, China, CIS, Czech Republic, Denmark, Egypt, Finland, France, Germany, Greece, Great Britain, Holland, Hong Kong, Hungary, India, Iran, Iraq, Kuwait, Libya, Malaysia, Mauritius, Norway, Romania, Saudi Arabia, Singapore, Slovak Republic, Spain, Sweden, Switzerland, Syria, Thailand, Tunisia, etc.

NTSC-Compatible Countries / Regions
Bahamas, Canada, Central America, Japan, Mexico, Philippines, Korea, Taiwan, United States of America, etc.

Troubleshooting

Troubleshooting

❖ If your device fails to function as expected, please check the following before contacting service personnel. Refer to the page numbers listed for further details.

Self Diagnosis Display

Display	Blinking	Informs that…	Action
▭	Slow	The battery pack is almost discharged	Change to a charged one or connect to other power source
TAPE END!	Slow	When the remaining time on the tape is less than 2 minutes	Prepare a new cassette
TAPE END!	No	Cassette has reached its end	Change to a new cassette
TAPE!	Slow	No cassette tape is inserted	Insert a tape
PROTECTION!	Slow	The tape is Record Protected	Change to a new cassette or release the tape record protection
⏏ D,L,C,R	Slow	Camcorder has a mechanical fault	1. Eject the cassette tape. 2. Set to off 3. Detach the battery. 4. Restart the camcorder If problem continues, contact your local service representative.
◈	Slow	Moisture condensation	See page 11
NO CARD!	Slow	No memory card is inserted	Insert a memory card
CARD FULL!	Slow	Not enough space for saving pictures	Change to a new memory card or delete recorded images
NO IMAGE!	Slow	There are no images recorded to play	Record a new still image
FILE ERROR!	Slow	The image file has an error	Delete the image or format the memory card

Troubleshooting

Display	Blinking	Informs that…	Action
CARD ERROR!	Slow	Memory card is formatted by other device or has error in system folder	Format the memory card using the camera menu

❖ If these instructions do not solve your problem, contact your nearest Samsung dealer or authorised service center/personnel.

Symptom	Possible Causes	Measure
No power is supplied	The power is not connected properly The battery is dead The battery is too cold	Connect the AC adapter properly, page 27 Replace the dead battery pack Warm up the battery or move to warmer place
LCD monitor is blank	Viewfinder is on. Multi-AV cable is connected Display option is turned off	Close the viewfinder Remove the cable Press the DISPLAY button to bring back OSD
DATE/TIME is wrong	The DATE/TIME is not set The built-in clock battery has exhausted.	Set the DATE/TIME, page 38 Replace the Li-ion battery for built-in clock, page 24
Cannot Record a video	Protection tab is set to “SAVE” Power Switch is set to PLAY Power Switch is set to (CAMERA)	Cancel the protection, page 48 Set the Power Switch to REC Set the Mode Dial to (MOVIE) mode
Focus does not adjust automatically	Focus is set to manual mode Recording was done in a dark place Lens is covered with condensation	Set focus to AUTO Use strobe or lit the place Clear the lens and check the focus
Cassette tape will not load properly	Cassette is in wrong position The battery is exhausted	Insert the cassette tape properly, page 47 Charge the battery or use AC adapter
The memory card will not load properly	Memory card is in wrong position Something fills in the memory card slot	Insert the memory card properly, page 83 Clear the memory card slot
Colour balance of picture is not natural	White balance adjustment is required	Set proper white balance, page 121

Troubleshooting

Symptom	Possible Causes	Measure
Digital zoom does not work	Digital special effect is applied	Turn off the digital special effects. page 57
Files stored in the memory card cannot be deleted	Memory card is protected File is protected	Remove the protection tab of memory card Remove the protection on the file, page 135
Images on the LCD monitor appear dark	Ambient is too bright Ambient temperature is too low	Adjust the brightness and angle of LCD Low temperatures might produce a dark LCD display This is not a malfunction.
Rear of the LCD monitor is hot	Prolonged use of LCD monitor	Close the LCD monitor to turn if off, or turn your device off to cool down.
Play, rewind and fast forwarding do not work	Power Switch is set to REC	Set the Power Switch to PLAY
Memory card cannot be played back (Camera mode)	Power Switch is set to PLAY Mode	Set the Power Switch to (CAMERA) Mode and set the Mode Dial to (PLAY) Mode
No picture is taken when PHOTO is fully pressed	Not enough free memory space is remained Memory card is formatted by different devices	Delete files from the memory card Format the memory card
Built-in flash will not pop up or fire	Flash is forced to cancel Focus is set to infinity AE lock is enabled Taking the motion clips Continuous shot option is turned on Bracket shooting is enabled Blocking the flash lid	Select different flash mode, page 110 Select AUTO, EASYQ, or different MF distance, page 112 Turn off the AE lock Flash is not available for Motion clips Turn off the continuous shot Turn off the AEB, page 125 Clear obstructing object

Specifications

Specifications

Model Name	VP-D6050(i)/D6040(i)	
Camcorder System		
Video Signal	PAL	
Video Recording System	2 Rotary heads, Helical Scanning System	
Audio Recording System	Rotary heads, PCM system	
Usable Cassette	Digital Video tape: 6.35mm MiniDV cassette	
Tape Speed	SP: approx. 18.83mm/s, LP: approx. 12.57mm/s	
Tape Recording Time	SP: 60 minutes, LP: 90 minutes (when using DVM60)	
FF/REW time	Approx. 180 sec (when using DVM60)	
General	**CAMCORDER**	**CAMERA**
Format	MiniDV	JPEG (DCF)
Dimension (WxHxD)	66 X 96 X 140 (mm)	
Weight (Net)	540g (Except the Lithium Ion Battery Pack and Tape)	
Power Consumption	VP-D6040(i) : 4.9W (LCD on) / 3.7W (CVF on) for recordings, VP-D6050(i) : 5.1W (LCD on) / 3.9W (CVF on) for recordings	
Power Source	DC 8.4V, LI-Ion Battery pack: 7.4V	
Power Source Type	Lithium-Ion battery pack, Power supply (100V ~ 240V, 50/60 Hz)	
Built-in Microphone	Omni-directional Stereo condenser microphone	
LCD Monitor		
Size	2.5”	
Pixel	200K(VP-D6050(i))/123K(VP-D6040(i)), Trans Reflective	
Bright / Colour Adjust	YES / YES	
Rotation Angle	90 + 270 deg	
Mirror	YES	
Viewfinder		
Display Device	Colour	
Size	0.24”	
Pixel	113K	
Diopter Adjust	YES	

• These technical specifications and design may be changed without notice.

Specifications

Lens	CAMCORDER	CAMERA
Optical Zoom Ratio	10x	3x
Digital Zoom Ratio	900x	12x
Focal Length (f)	2.7 ~ 27mm	7.7 ~ 23.1mm
F. No (Wide / Tele)	1.4 / 1.8	2.8 / 4.9
Zooming Speed	Variable 4 step	1 step
Filter Diameter	30	Not Available
0 Lux Recording	Night Capture/Power Night Capture	NO
Macro	Wide Macro	4~80cm (Wide), 30~80cm (Tele)
CCD	**CAMCORDER**	**CAMERA**
Size	1/6" Charge Coupled Device	1/1.8" Charge Coupled Device
Pixel	800K	5.25M/5.1M(VP-D6050(i)), 4.13M/4.0M(VP-D6040(i))
Strobo / Flash	NO / NO	NO / YES
Image Stabiliser	DIS	NO
Auto Focus / Manual Focus	YES / YES	YES / YES
Shutter Speed (Auto)	1/50 ~ 1/10,000	2 ~ 1/2,000
Manual Shutter Speed	1/50 ~ 1/10,000 8 step	NightScene Mode, 15 ~ 1/2,000
Auto White Balance	YES	YES
Metering		TTL Automatic, 80cm ~ infinity
Connectors		
Video output	1 Vp-p (75Ω terminated)	
S-VIDEO output	Y: 1 Vp-p, 75Ω C: 0.2861 Vp-p, 75Ω	
Audio output	7.5 dBs(600Ω terminated)	
DV input / output	4-pin IEEE1394	
USB output	Mini-B type	
External MIC	Ø3.5 stereo	
Others		
Operating Temperature	0 ~ 42°C / 32 ~ 104°F	
Storage Temperature	-20 ~ 60°C / -4 ~ 140°F	

Index

- A -

Audio dubbing 77
AUDIO MODE 60

- B -

BLC 62

- C -

Cassette 47
Cleaning and Maintaining the Camcorder 152
CLOCK SET 38, 91
CONT. SHOT 124

- D -

DATE/TIME 39, 91
DELETE 103
DEMONSTRATION 42
DIGITAL ZOOM 55, 128
DIS 56
DSE 57, 124

- E -

EASY Mode 44

- F -

Fade In and Out 67
FILE NUMBER 86
FLASH 110
Focus 45, 109
Folders and Files 85

- H -

Hand Strap 26

- I -

IEEE1394 151
image quality 87
image size 88

- L -

LCD 33
Lithium battery 28

- M -

MACRO 114
MEMORY STICK 83
MENU 36, 95
MF/AF 45, 112
MPEG Playback 108
MPEG REC 107
MPEG SIZE 106

- N -

NIGHT CAPTURE 64

- O -

OSD 22, 23, 24

- P -

PB DSE 80
PB ZOOM 81
PHOTO 71
Playback 73
POWER NIGHT CAPTURE 65
Power Source 27
Power Switch 31
PRINT MARK 142
PROGRAM AE 52, 117
PROTECT 48, 135

- Q -

Quick Menu 68
Quick Review 102

Index

- R -

REC MODE 31
Remote Control 25

- S -

Search 74
SHUTTER SPEED & EXPOSURE 66
Slide Show 101
SLOW SHUTTER 63
Speaker 35
SPOT-AE 116

- T -

Troubleshooting 159
TV DISPLAY 43

- U -

USB 153

- V -

VIEWFINDER 34
Viewing Still images 100

- W -

WHT. BALANCE 54, 121
WIND CUT 61
WL.REMOTE 40. 93

- Z -

ZERO MEMORY 79

ENGLISH

THIS CAMCORDER IS MANUFACTURED BY:

***Samsung Electronics' Internet Home Page**
United Kingdom http://www.samsungelectronics.co.uk

AD68-00779F
REV. 02